Childhood Unintentional Injuries in San Diego County: A Report to the Community

San Diego Safe Kids Coalition

June 2002

San Diego Safe Kids Coalition

Lead Agency: Children's Hospital and Health Center

On January 5, a 18 year old Poway male died as the driver in a motorcycle crash On January 7, a one day old boy died after being prematurely born in the back of a pickup truck On January 14, a 12 year old Escondido boy died as the result of being struck by a motor vehicle as the driver of a go cart On January 16, a 15 year old boy died as a passenger in a motor vehicle crash On January 16, a 16 year old Buena Park boy died as the driver of an off road motorcycle that ran into a rock On January 22, a 9 year old Paradise Hills boy died by an unintentional hanging in the rear yard of his residence On January 27, a 12 year old girl died as the result of being struck by a motor vehicle as a pedestrian On January 28, a 19 year old Chula Vista female died when she jumped from a moving vehicle and hit her head On February 1, an 8 month old girl died after being ejected from her car seat in a motor vehicle crash On February 4, a 19 year old El Cajon female died as the result of a drug overdose On February 6, an 17 year old San Ysidro female died as a passenger in a motor vehicle crash On February 9, an 18 year old Ramona male died as the driver in a motorcycle crash On February 19, a 5 year old North Park girl died as a passenger in a motor vehicle crash On February 27, a 16 year old Campo female died as the driver in a motor vehicle crash On February 29, a 19 year old El Cajon male died as a passenger in a motor vehicle crash On March 2, an 8 year old Chula Vista boy died as the result of being struck by a motor vehicle as a bicyclist On March 6, a 14 year old female died as the result of exposure to the elements On March 11, a 17 year old died as the driver in a motor vehicle crash On March 23, a 19 ye[illegible] Ra[illegible] a m[illegible] died as a passenger in a motor vehicle crash On March 24, a 19 year old male died as a passenger in a motor vehicle crash [illegible] male died as a passenger in a motor vehicle crash On March 30, a 15 year old San Diego male died as a 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crash On June 14, a 16 month old Oceanside girl died as the result of being struck by a motor vehicle as a pedestrian On June 14, a 2 year old Chula Vista boy died of asphyxiation as a result of being wedged in a window seal On July 3, a 14 year old Oceanside male died as a result of a fall while skateboarding On July 7, a 4 year old Oceanside boy died as a result of drowning in a swimming pool On July 11, a 19 year old San Diego female died as the result of being struck by a motor vehicle as a pedestrian On July 18, an 11 month old boy died as a result of drowning in the family home bathtub On July 21, a 7 month old Logan Heights boy died of asphyxiation as a result of being wedged between a mattress and bed rail On July 30, a 16 year old El Cajon male died as the result of being struck by a motor vehicle as a pedestrian On July 31, a 16 year old female died as a passenger in a motor vehicle crash On August 1, a 15 month old San Diego girl died as a result of drowning in a jacuzzi On August 5, a 19 year old male died as the driver in a motorcycle crash On August 8, a 19 year old San Diego male died as a passenger in a motor vehicle crash On August 15, a 6 year old Spring Valley male died as the result of being struck by a motor vehicle as a pedestrian On August 16, a 2 year old Oceanside girl died as a result of drowning in a swimming pool On August 17, a 15 year old Spring Valley male died as a result of drowning in the ocean On August 19, an 18 year old male died as a passenger in a motor vehicle crash On August 19, a 2 year old girl visiting from Japan died as the result of being struck by a motor vehicle as a pedestrian On August 23, a 15 month old boy died as a result of drowning in a swimming pool On August 28, an 18 year old San Diego female died as the driver in a motor vehicle crash On August 29, a 16 year old Ramona male died as the driver of a three wheeler that collided with a motorcycle On August 29, a 19 year old female died as the result of exposure to the elements On August 29, a 16 year old male died as the result of exposure to the elements On August 30, a 3 month old female died as the result of dehydration after caretaker died On August 30, a 3 month old female died as the result of dehydration after caretaker died On September 4, a 19 year old San Diego male died as the driver in a motor vehicle crash On September 7, a 17 year old San Diego male died as a result of drowning in the ocean On September 7, a 17 year old Solana Beach female died as a result of falling off of a golf cart and striking head On September 12, an 18 year old El Cajon male died as the result of a drug overdose On September 12, an 11 month old San Diego girl died as a result of drowning in a bucket On September 20, an 8 year old Vista male died as the result of being struck by a motor vehicle as a skateboarder On September 20, a young Mexican male died as the result of being struck by a motor vehicle as a pedestrian On September 23, a 6 year old male died as the result of being struck by a motor vehicle as a pedestrian On September 30, 19 year old National City male died as a passenger in a motor vehicle crash On September 30, a 13 year old Spring Valley male died as a passenger in a motor vehicle crash On October 1, a 4 year old Spring Valley girl died as a passenger in a motor vehicle crash On October 6, a 10 year old Escondido female died as a result of electrocution On October 8, a 19 year old Chula Vista male died as a passenger in a motor vehicle crash On October 8, a 15 year old Claremont female died as a passenger in a motor vehicle crash On October 15, a 17 [illegible] On October 15, a 17 year old male died as a passenger in a motor vehicle crash On O[illegible] driver in a motor vehicle crash On October 17, an 18 year old San Diego male died as a [illegible] 1 year old National City boy died as the result of being struck by a motor vehicle as a pe[illegible] died as the result of being struck by a motor vehicle as a 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San Diego SAFE KIDS Coalition

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June 22,2000

Dear Friends:

The San Diego Safe Kids Coalition had developed the Childhood Unintentional Injuries in San Diego County: A Report to the Community to achieve a better understanding of childhood unintentional injuries and what actions can be taken to help reduce injury incidents.

This document contains three types of child and adolescent injury data. The data provides important information on the major mechanisms of injury and should assist in the development of your prevention strategies. The report includes prehospital (paramedic) data, Trauma Registry data, and if applicable, Medical Examiner data.

Our surveillance data is limited, however as it only captures information on the most severely injured children. The child that falls from the jungle gym at school and is carried to the nurse's office and then seen by a pediatrician is not represented in our data. Neither is the child that is injured during a soccer game and taken directly to an emergency room by a parent. However, these types of injuries represent an important piece of the unintentional injury equation.

In the first Annual Report to the Community we stated, "Unintentional injury is a community problem that demands a community solution". The San Diego Safe Kids Coalition is working to raise awareness about unintentional injuries in children. Many things still need to be accomplished and your participation is vital to our success.

If you have any questions, please call us at 858-576-1700 ext. 5704

Sincerely,

Roxanne Hoffman, Coordinator
San Diego Safe Kids Coalition

Lead Agency

Children's Hospital and Health Center

Acknowledgements

The San Diego Safe Kids Coalition gratefully acknowledges the contributions of the following agencies and individuals that made this report possible.

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Dedication

This report is dedicated to the memory of those children lost to us through unintentional injuries.

2000

1. On January 5, a 18 year old Poway male died as the driver in a motorcycle crash.
2. On January 7, a one day old boy died after being prematurely born in the back of a pickup truck.
3. On January 14, a 12 year old Escondido boy died as the result of being struck by a motor vehicle as the driver of a go cart.
4. On January 16, a 15 year old boy died as a passenger in a motor vehicle crash.
5. On January 16, a 16 year old Buena Park boy died as the driver of an off road motorcycle that ran into a rock.
6. On January 22, a 9 year old Paradise Hills boy died by an unintentional hanging in the rear yard of his residence.
7. On January 27, a 12 year old girl died as the result of being struck by a motor vehicle as a pedestrian.
8. On January 28, a 19 year old Chula Vista female died when she jumped from a moving vehicle and hit her head.
9. On February 1, an 8 month old girl died after being ejected from her car seat in a motor vehicle crash.
10. On February 4, a 19 year old El Cajon female died as the result of a drug overdose.
11. On February 6, an 17 year old San Ysidro female died as a passenger in a motor vehicle crash.
12. On February 9, an 18 year old Ramona male died as the driver in a motorcycle crash.
13. On February 19, a 5 year old North Park girl died as a passenger in a motor vehicle crash.
14. On February 27, a 16 year old Campo female died as the driver in a motor vehicle crash.
15. On February 29, a 19 year old El Cajon male died as a passenger in a motor vehicle crash.
16. On March 2, an 8 year old Chula Vista boy died as the result of being struck by a motor vehicle as a bicyclist.
17. On March 6, a 14 year old female died as the result of exposure to the elements.
18. On March 11, a 17 year old died as the driver in a motor vehicle crash.
19. On March 23, a 19 year old Ramona male died as a passenger in a motor vehicle crash.
20. On March 24, a 19 year old male died as a passenger in a motor vehicle crash.
21. On March 24, an 18 year old San Diego male died as a passenger in a motor vehicle crash.
22. On March 27, a 17 year old San Gabriel male died as a passenger in a motor vehicle crash.
23. On March 30, a 15 year old San Diego male died as a result of being struck by a trolley.
24. On April 6, a 13 year old San Diego male died as a result of being struck in the head by a plastic swing.
25. On April 9, a 16 year old Encinitas male died as the driver in a motor vehicle crash.

26. On April 11, a 16 year old La Mesa male died as the driver in a motor vehicle crash.
27. On April 18, an 18 year old Talmadge female died as a passenger in a motor vehicle crash.
28. On April 20, an 17 year old Costa Mesa male died as a passenger in a motor vehicle crash.
29. On April 22, a 2 month old Spring Valley boy died as a result of asphyxiation by a plastic bag over face.
30. On April 27, a 21 month old Temecula male died as a result of drowning in a jacuzzi.
31. On April 29, a 3 year old Murrieta boy died as the result of being struck by a motor vehicle as a pedestrian.
32. On May 5, a 19 year old Santee boy died as the result of being struck by a motor vehicle as a pedestrian.
33. On May 6, a 19 year old Chula Vista male died as the driver in a motor vehicle crash.
34. On May 9, a 3 year old Oceanside boy died as a result of drowning in a bathtub.
35. On May 11, a 19 year old male died as the driver in a motor vehicle crash.
36. On May 21, an 18 year old Mira Mesa male died as the driver in a motor vehicle crash.
37. On May 22, a 19 year old Phoenix female died as a passenger in a motor vehicle crash.
38. On May 26, a 19 year old Ramona female died as the driver in a motor vehicle crash.
39. On May 28, a 3 year old girl residing in Japan died as a result of drowning in a spa.
40. On June 3, a 17 year old San Diego male died as the driver in a motor vehicle crash.
41. On June 3, a 19 year old San Diego male died as a passenger in a motor vehicle crash.
42. On June 10, a 1 year old Mira Mesa girl died as a result of drowning in a swimming pool.
43. On June 10, a 7 year old boy died from complications from a femur fracture sustained when he jumped off of a bunk bed.
44. On June 13, a 11 year old boy died from complications from a near drowning incident at 15 months old.
45. On June 14, a 19 year old San Diego male died as the driver in a motorcycle crash.
46. On June 14, a 16 month old Oceanside girl died as the result of being struck by a motor vehicle as a pedestrian.
47. On June 14, a 2 year old Chula Vista boy died of asphyxiation as a result of being wedged in a window seal.
48. On July 3, a 14 year old Oceanside male died as a result of a fall while skateboarding.
49. On July 7, a 4 year old Oceanside boy died as a result of drowning in a swimming pool.
50. On July 11, a 19 year old San Diego female died as the result of being struck by a motor vehicle as a pedestrian.
51. On July 18, an 11 month old boy died as a result of drowning in the family home bathtub.
52. On July 21, a 7 month old Logan Heights boy died of asphyxiation as a result of being wedged between a mattress and bed rail.
53. On July 30, a 16 year old El Cajon male died as the result of being struck by a motor vehicle as a pedestrian.
54. On July 31, a 16 year old female died as a passenger in a motor vehicle crash.
55. On August 1, a 15 month old San Diego girl died as a result of drowning in a jacuzzi.
56. On August 5, a 19 year old male died as the driver in a motorcycle crash.
57. On August 8, a 19 year old San Diego male died as a passenger in a motor vehicle crash.
58. On August 15, a 6 year old Spring Valley male died as the result of being struck by a motor vehicle as a pedestrian.

59. On August 16, a 2 year old Oceanside girl died as a result of drowning in a swimming pool.
60. On August 17, a 15 year old Spring Valley male died as a result of drowning in the ocean.
61. On August 19, an 18 year old male died as a passenger in a motor vehicle crash.
62. On August 19, a 2 year old girl visiting from Japan died as the result of being struck by a motor vehicle as a pedestrian.
63. On August 23, a 15 month old boy died as a result of drowning in a swimming pool.
64. On August 28, an 18 year old San Diego female died as the driver in a motor vehicle crash.
65. On August 29, a 16 year old Ramona male died as the driver of a three wheeler that collided with a motorcycle.
66. On August 29, a 19 year old female died as the result of exposure to the elements.
67. On August 29, a 16 year old male died as the result of exposure to the elements.
68. On August 30, a 3 month old female died as the result of dehydration after caretaker died.
69. On August 30, a 3 month old female died as the result of dehydration after caretaker died.
70. On September 4, a 19 year old San Diego male died as the driver in a motor vehicle crash.
71. On September 7, a 17 year old San Diego male died as a result of drowning in the ocean.
72. On September 7, a 17 year old Solana Beach female died as a result of falling off of a golf cart and striking head.
73. On September 12, an 18 year old El Cajon male died as the result of a drug overdose.
74. On September 12, an 11 month old San Diego girl died as a result of drowning in a bucket.
75. On September 20, an 8 year old Vista male died as the result of being struck by a motor vehicle as a skateboarder.
76. On September 20, a young Mexican male died as the result of being struck by a motor vehicle as a pedestrian.
77. On September 23, a 6 year old male died as the result of being struck by a motor vehicle as a pedestrian.
78. On September 30, 19 year old National City male died as a passenger in a motor vehicle crash.
79. On September 30, a 13 year old Spring Valley male died as a passenger in a motor vehicle crash.
80. On October 1, a 4 year old Spring Valley girl died as a passenger in a motor vehicle crash.
81. On October 6, a 10 year old Escondido female died as a result of electrocution.
82. On October 8, a 19 year old Chula Vista male died as a passenger in a motor vehicle crash.
83. On October 8, a 15 year old Claremont female died as a passenger in a motor vehicle crash.
84. On October 15, a 17 year old male died as the driver in a motor vehicle crash.
85. On October 15, a 17 year old male died as a passenger in a motor vehicle crash.
86. On October 17, a 19 year old San Clemente female died as the driver in a motor vehicle crash.

87. On October 17, an 18 year old San Diego male died as a passenger in a motor vehicle crash.
88. On October 26, an 11 year old National City boy died as the result of being struck by a motor vehicle as a pedestrian.
89. On October 27, a 7 year old Linda Vista girl died as the result of being struck by a motor vehicle as a pedestrian.
90. On October 29, a 15 year old San Diego male died as a result of drowning in a reservoir.
91. On October 29, a 17 year old Hawthorne male died as the driver in a motor vehicle crash.
92. On October 29, a 2 year old Monterey Park girl died as a passenger in a motor vehicle crash.
93. On November 3, a 2 year old Lemon Grove girl died as a result carbon monoxide poisoning.
94. On November 4, a 1 year San Marcos girl died as a result of drowning in a swimming pool.
95. On November 12, a 17 year old Scripps Ranch male died as a result of complications from a motorcycle accident from the previous month.
96. On November 22, a 16 year old female died as a result of complications from a drug overdose from the previous month.
97. On December 6, a 5 year old Spring Valley boy died as a result of smoke inhalation from a residential fire.
98. On December 9, a 7 year old Chula Vista girl died as a passenger in a motor vehicle crash.
99. On December 23, a 17 year old Oceanside male died as the driver in a motorcycle crash.
100. On December 26, a 19 year old Bay Park male died as the driver in a motor vehicle crash.
101. On December 29, a 6 month old Iranian male died as a passenger in a motor vehicle crash.
102. On December 30, a 19 year old El Centro male died as the driver in a motorcycle crash.

2001

1. On January 12, a 17 year old Valley Center male died as a passenger in a motor vehicle crash.
2. On January 12, a 16 year old Valley Center female died as the driver in a motor vehicle crash.
3. On January 12, a 1 month old boy died as a result of suffocation after a relative rolled on him while sleeping.
4. On January 19, a 5 year old boy died from complications from head injuries sustained in a all terrain vehicle accident in the previous month.
5. On January 25, an 18 year old Carlsbad male died as a passenger in a motor vehicle crash.
6. On January 28, a child was stillborn after her mother suffered a gunshot wound to the abdomen in the previous month.
7. On February 4, a 5 year old Logan Heights boy died as the result of being struck by a motor vehicle as a pedestrian.

8. On February 6, a 1 month old boy died as the result from excessive administration of digoxin.
9. On February 10, an 18 year old La Jolla male died as the result of falling off a cliff.
10. On February 11, an 18 year old Santa Ysabel female died as the driver in a motor vehicle crash.
11. On February 12, a 17 year old La Mesa male died as the result of a drug overdose.
12. On March 5, a 15 year old Chula Vista female died as a passenger in a motor vehicle crash.
13. On March 5, a 17 year old Chula Vista male died as the driver in a motor vehicle crash.
14. On March 5, a 19 year old male died as the driver in a motorcycle crash.
15. On March 10, a 19 year old male died as the driver in a motor vehicle crash.
16. On March 20, a 14 year old male died as a passenger in a motor vehicle crash.
17. On March 24, a 14 year old La Mesa female died as the result of a drug overdose.
18. On March 25, an 18 year old Escondido male died as a result of drowning in a lake.
19. On March 31, a 14 year old National City male died as a passenger in a motor vehicle crash.
20. On April 3, a 19 year old Coronado male died as the driver in a motor vehicle crash.
21. On April 30, a 16 year old San Diego male died as the driver in a motor vehicle crash.
22. On May 1, a 19 year old Pine Valley male died as the driver in a motorcycle crash.
23. On May 10, a 5 year old San Diego girl died from complications from a near drowning 4 days earlier.
24. On May 12, a 16 year old Escondido female died as the result of being struck by a motor vehicle as a pedestrian.
25. On May 15, an 18 year old San Diego male died as a passenger in a motor vehicle crash.
26. On May 15, an 18 year old Lakeside male died as the driver in a motor vehicle crash.
27. On May 20, a 16 month Hawaiian girl died from complications of a surgical procedure.
28. On June 2, a 19 year old Vista male died as the driver in a motor vehicle crash.
29. On June 2, a 16 year old male died as a result of drowning in a river.
30. On June 16, an 18 year old Del Mar male died as a passenger in a motor vehicle crash.
31. On June 18, a 17 year old Mexican female died as the result of exposure to the elements.
32. On June 21, a 2 year old Vista boy died as a result of drowning in a swimming pool.
33. On April 7, a 17 year old El Cajon male died as the driver in a motor vehicle crash.
34. On April 13, a 5 week old boy died from probable asphyxia while breast feeding.
35. On May 5, a 19 year old Poway male died as the result of falling off a cliff.
36. On May 26, a 19 year old San Marcos male died as the driver in a motor vehicle crash.
37. On June 16, an 18 year old Alpine male died as the driver in a motor vehicle crash.
38. On June 20, a 12 year old Santee female died as the result of being struck by a motor vehicle as a pedestrian.
39. On June 21, an 18 year old Pauma Valley male died as the driver in a motor vehicle crash.
40. On July 1, an 18 year old Oceanside female died as the result of a drug overdose.
41. On July 6, an 18 year old male died as the result of being crushed by equipment falling from a truck.
42. On July 7, a 13 year old San Diego male died as the result of being struck by a motor vehicle while riding a skateboard.
43. On July 8, an 18 year old San Diego male died as the result of a drug overdose.

44. On July 10, a 13 year old Poway male died as the result of being struck by a motor vehicle as a pedestrian.
45. On July 21, a 16 year old Oceanside male died as the driver in a motor vehicle crash.
46. On July 21, a 17 year old Oceanside male died as a passenger in a motor vehicle crash.
47. On July 21, an 18 year old Oceanside male died as a passenger in a motor vehicle crash.
48. On July 21, a 17 year old Oceanside male died as a passenger in a motor vehicle crash.
49. On July 31, a 19 year old San Diego male died as a result of being pinned by a wooden frame as a construction site.
50. On July 31, a 9 year old boy died as the result of being struck by a motor vehicle while riding a scooter.
51. On August 8, an 11 month old Vista boy died as a result of drowning in a bucket.
52. On August 9, a 10 month old Santee boy died as a result of drowning in a bathtub.
53. On August 14, a 17 year old Carlsbad male died as the driver in a motor vehicle crash.
54. On August 19, a 7 year old boy died as the result of being struck by a motor vehicle as a bicyclist.
55. On August 31, an 18 year old Camp Pendelton male died as a result of drowning in the ocean.
56. On September 21, a 16 year old male died as the driver in a motor vehicle crash.
57. On September 21, a 19 year old Vista male died as the driver in a motor vehicle crash.
58. On October 14, an 18 year old male died as a passenger in a motor vehicle crash.
59. On October 19, a 19 year old Oceanside male died as the result of a drug overdose.
60. On October 26, a 7 week old Lakeside girl died as the result of being caught between the edge of bouncer seat and strap.
61. On October 31, a 7 year old San Diego boy died as the result of being struck by a motor vehicle while riding a scooter.
62. On October 31, a 19 year old Miramar male died as the result of being struck by a motor vehicle as a bicyclist.
63. On November 7, an 18 year old male died as the driver in a motor vehicle crash.
64. On November 10, a 19 year old Claremont male died as the driver in a motor vehicle crash.
65. On November 11, a 13 year old Aliso Viejo male died as the driver in a motorcycle crash.
66. On November 11, a 19 year old San Diego male died as a passenger in a motor vehicle crash.
67. On November 21, a 16 year old Spring Valley male died as the driver in a motorcycle crash.
68. On December 16, a 17 year old Rancho Penasquitos male died as the driver in a motorcycle crash.
69. On December 16, a 17 year old Chula Vista male died as the driver in a motor vehicle crash.
70. On December 17, an 8 year old University City boy died of complications from falling on the arm pad of a crutch 9 days earlier.
71. On December 20, a 19 year old Van Nuys male died as the driver in a motor vehicle crash.
72. On December 25, an 18 year old male died as the driver in a motor vehicle crash.

Introduction

The vision of the San Diego Safe Kids Coalition is that San Diego Will Be A Community Where Children Will Be Free from Injuries. The Safe Kids Coalition is a community collaborative dedicated solely to the prevention of childhood and adolescent unintentional injuries and deaths. After all, injuries are the leading public health threat for children. The San Diego Safe Kids Coalition is part of the National Safe Kids Campaign, emanating from Children's National Medical Center in Washington, D.C. under the leadership of Dr. Martin Eichelberger and Dr. C. Everett Koop. San Diego's Safe Kids Coalition began in 1987 under the auspices of the San Diego Safety Council. In 1992 Children's Hospital and Health Center became the lead organization.

The Coalition has organized the *Childhood Unintentional Injuries in San Diego County: A Report to the Community* to update San Diego County on the current state of unintentional injuries that face children and adolescents. The Coalition has organized a comprehensive collection of the best childhood injury data currently available in San Diego. In this report you will find information on the following unintentional injury mechanisms for children and adolescents under the age of 20.

- Transportation related injuries including motor vehicle occupant, pedestrian, pedalcycle, and other transportation related injuries.
- Household injuries including burns/scalds, suffocation/airway obstruction, falls, bite/stings, poisonings, firearm injuries, and cut/pierce injuries.
- Drowning
- Sports and Recreation Injuries

This report does not include information on injuries that are caused by intentional mechanisms such as homicide, suicide and assault. However, when an adolescent dies as a result of an overdose or poisoning, the possibility of intentional overdose can be difficult to assess.

In addition to the injury data that is being provided, this report includes:

- Abstracts of local injury research
- Updates on San Diego Safe Kids Coalition Activities
- Prevention Activities You Can Do

The San Diego Safe Kids Coalition encourages you to review this report to learn more about the major childhood public health threat in San Diego County – unintentional injury. The Coalition also encourages you to use this report to determine how you can support prevention activities in your home and community. By focusing on injuries that effect the greatest number of victims or pose the greatest risk to a specific group of children balanced with those injuries that have the greatest medical and societal impacts, limited resources can be dedicated to appropriate prevention efforts. In addition, the data can be utilized to determine the effectiveness of these prevention efforts.

San Diego Safe Kids Coalition Activities

The focus of the San Diego Safe Kids Coalition over the years has been threefold:

- Public awareness/media campaigns
- Program development and implementation of prevention strategies
- Advocating for public policy and regulations that decrease the risk of childhood injuries

San Diego Safe Kids takes its role of child advocacy seriously. These activities have taken the San Diego Safe Kids Coalition through work ranging from drowning prevention to gunlocks and improved motor vehicle child occupant protection laws. Recently, the Coalition advanced one of the advocacy goals by working with State Senator Jack O'Connell to require helmets for individuals under 18 years of age who ride skateboards, scooters, and in-line skates. Additionally, we actively supported bicycle and pedestrian safety legislation and new legislation aimed at reducing residential swimming pool drowning.

In 1995, a steering committee was convened to redefine the role of the San Diego Safe Kids Coalition. That committee defined the Safe Kids Coalition roles:

- To facilitate a broad-based community coalition that promotes, educates, and advocates for the prevention of unintentional injuries while supporting and reinforcing programs of injury prevention partners.
- To identify and mobilize community resources.
- To gather and assess data related to unintentional injuries in San Diego County.
- To set priorities for actions and resource allocation.
- To develop and/or implement and/or evaluate interventions.
- To establish the San Diego Safe Kids Coalition as a highly visible community resource and disseminate information.

The San Diego Safe Kids Coalition encourages you to closely review this report and determine how you and your agency or organization can utilize this information to improve your injury prevention efforts. The San Diego Safe Kids Coalition also encourages you to research prevention initiatives and determine what efforts have been identified as the best practices based on a collection and analysis of appropriate data. More information on injury prevention best practices is available by accessing Children's Hospital website at www.chsd.org.

Currently the membership of the Coalition has grown to over 60 agencies and individuals working together to turn our vision into a reality. We invite you to become involved!

Childhood Injury as a Public Health Threat

"If a disease were killing our children in the proportion accidents are, people would be outraged and demand this killer be stopped."

C. Everett Koop, MD
Former U.S. Surgeon General

Injury is the leading cause of death for every age group between 1 and 44 years old in the United States. Injury is a public health threat and was first described in 1967 by the National Academy of Sciences. Only modest progress has been made since then toward eliminating this leading cause of death and disability among our children.

There is wide agreement among public health officials that injuries are predictable and thus preventable occurrences. Prevention means correcting the condition that could lead to an injury before that injury occurs through behavioral change, environmental change,

engineering, and product design changes or legislative mandate. In many cases, prevention requires not only an environmental or engineering change but also behavioral change to adopt the change. For example, seat belts were incorporated into most automobiles by 1970, however it was not until the mid 1980's that seat belt use began to increase. This increased use was due to a combination of education and legislation that led to behavioral change.

The public health approach to injury is to treat it like any other threat to the health of the population through surveillance, risk factor identification, intervention evaluation and implementation. In other words, determine the scope of the problem, the cause, what works, and how to do it.

The Cost of Unintentional Injury

According to injury economist Dr. Ted Miller of the Children's Safety Network, Economics and Insurance Resource Center, unintentional injuries to children in 1999 exceeded $56 billion nationally. Of these costs, $32 billion were due to loss of productive life while over $24 billion were for direct medical costs. Medical costs include spending on hospital and professional services, rehabilitation, prescriptions, home health care, medical equipment, and funeral expenses. Productive life costs include wages, fringe benefits and household work for adults. For children, this represents the present value of a lifetime's worth of wage and household work that they will be unable to do as adults if they are killed or permanently disabled. These earning estimates include fringe benefits.

These costs were based on injuries that resulted in deaths, hospitalizations, emergency department visits, and physician visits. Since data is not available on every emergency department or physician visit, this information was estimated from sample data gathered through the National Health Interview Survey. The Centers for Disease Control and Prevention (CDC) have estimated that for every death due to unintentional injury among children, there are an estimated 45 hospitalizations, 1,200 visits to emergency rooms and nearly 1,600 visits to physicians' offices.

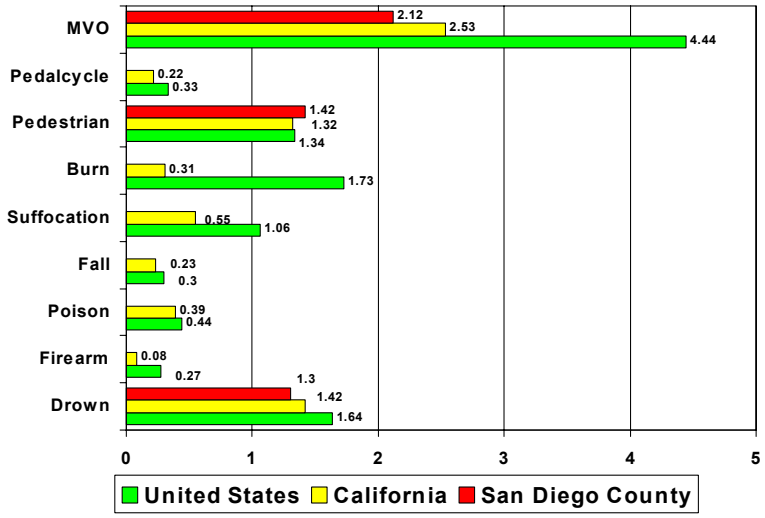
Based on the CDC's estimated injury ratio, in California there were an estimated 2,925,944 unintentional injuries to children that required medical attention. The total medical and productive life costs of unintentional injuries to children exceeded $8 billion dollars in 1999. Over $3.5 billion were for direct medical costs, which is equivalent to $9.7 million per day.

In San Diego County, there were an estimated 229,628 unintentional injuries to children that required medical attention. The total medical and productive life costs of unintentional injuries in children under age 20 is estimated at over $650 million in 1999. Over $280 million were for direct medical costs, which is equivalent to $768,000 per day. This is roughly $100 per San Diego County resident.

National, State, and County Comparisons

The rates of many types of unintentional injury deaths in San Diego County could not be calculated due to insufficient numbers. However, the rate of unintentional injury death in children 0-19 years of age that are attributed to Motor Vehicle Occupant (MVO) crashes are by far the highest of all unintentional injury deaths. In California and San Diego County, the rates are about half that of the United States. Unintentional pedestrian and drowning death rates are similar in the United States, California, and San Diego County.

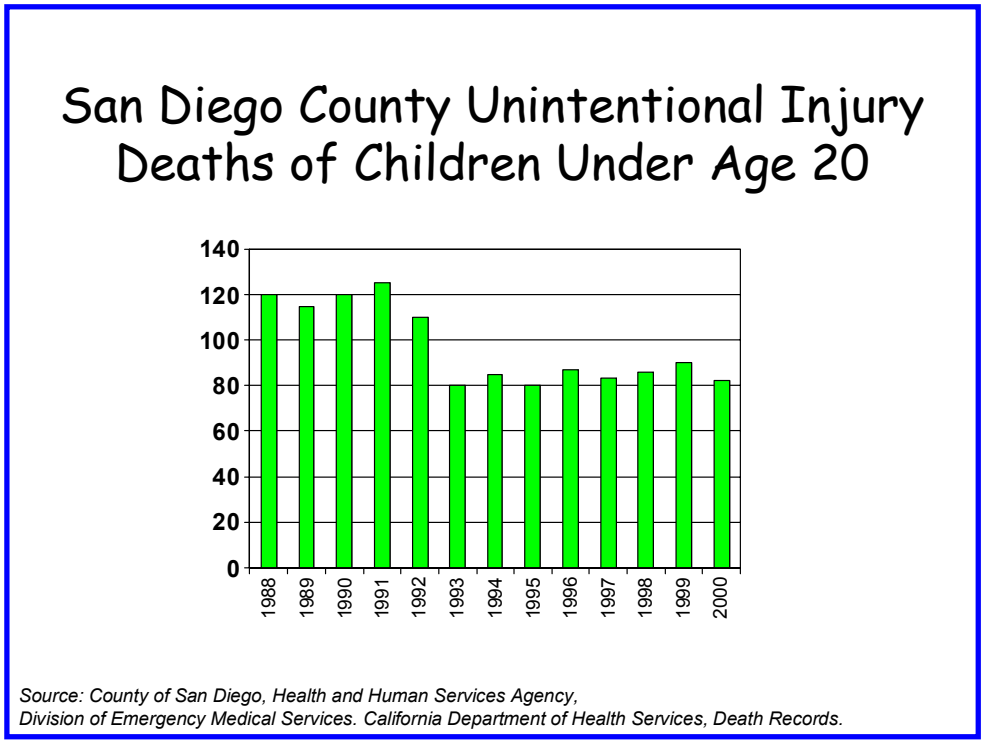
Rate of Selected Unintentional Injury Deaths, Under the Age of 20, 1999



Rates not calculated on less than five incidents.
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, National Center for Health Statistics, Compressed Mortality File, 1999; Population Estimates, US Bureau of the Census

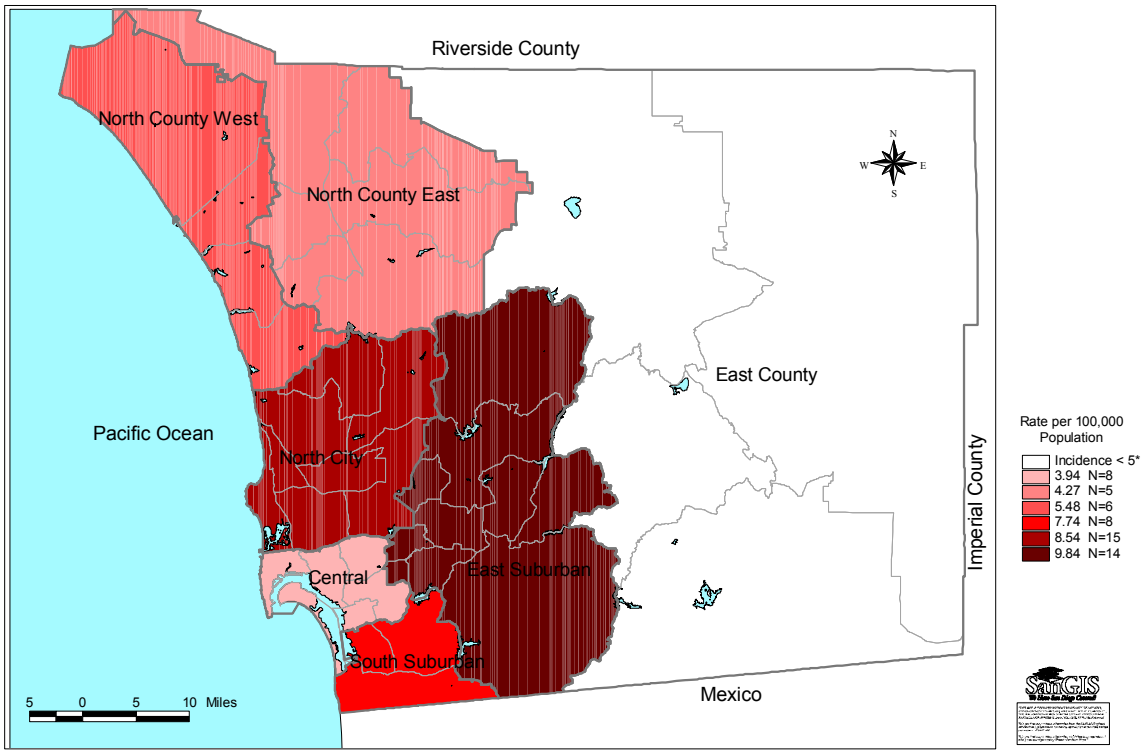
The Impact of Childhood Injury in San Diego County

The number of unintentional injury deaths of children under age 20 has decreased over the last thirteen years to a current level of 82 deaths in 2000.



In San Diego County, the East Suburban MRA had the highest rate if unintentional injury death in children 0-19 years of age (9.84/100,000) followed by North City (8.54/100,000) and South Suburban (7.74/100,000). The Central MSA had the lowest rate (3.94/100,000).

Overall Unintentional Deaths
Under the Age of 20 by Major Statistical Area



Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Medical Examiner's Records, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.
*Rates not calculated ion incidents less than 5.
Note: there were 7 patients with an unspecified SRA.

The following table represents the majority of deaths to children 0-19 years of age. In 2000, as in most previous years, the leading cause of death among children aged 1-19 was unintentional injury.

Leading Causes of Death by Age Group in San Diego County, 2000

Rank	<1	1-4	5-9	10-14	15-19	0-19
1	Perinatal Conditions 119	Unintentional Injuries 14	Unintentional Injuries 13	Unintentional Injuries 6	Unintentional Injuries 45	Perinatal Conditions 119
2	Congenital Anomalies 69	Congenital Anomalies 4	Cancer (All Sites) 2*	Congenital Anomalies 3*	Assault (Homicide) 14	Unintentional Injuries 82
3	Diseases of the Heart 9	Assault (Homicide) 2*	Diseases of the Heart 2*	Cancer (All Sites) 3*	Suicide 13	Congenital Anomalies 78
4	Assault (Homicide) 6	Cancer (All Sites) 2*	Influenza and Pneumonia 1*	Diseases of the Heart 2*	Cancer (All Sites) 12	Assault (Homicide) 24
5	Influenza and Pneumonia 5	Diseases of the Heart 2*	Meningitis 1*	Assault (Homicide) 2*		Cancer (All Sites) 19
6	Unintentional Injuries 4	Influenza and Pneumonia 2*				Diseases of the Heart 17
Number of Other and Unrankable Deaths	**51**	**12**	**5**	**7**	**21**	**114**
Total Number of Deaths	**263**	**38**	**24**	**23**	**105**	**453**

Source: County of San Diego, Health and Human Services Agency, Division of Community Epidemiology, California Death Statistical Master File. Based on County of Residence.
**Indicates a tie.*

The leading causes of injury deaths varied by age. Among those children under age 5, the leading cause of death was drowning. Among children ten and over, the leading cause of unintentional injury death was motor vehicle crashes.

Leading Causes of Injury Deaths by Age Group in San Diego County, 2000

Rank	<5	5-9	10-14	15-19	0-19
1	Unintentional Drowning 9	Unintentional Pedestrian 4	Unintentional MVO Crash 2	Unintentional MVO Crash 21	Unintentional MVO Crash 28
2	Homicide Other 7	Unintentional MVO Crash 3		Homicide Firearm 13	Unintentional Drowning 14*
3	Unintentional Other 3			Unintentional Other Transportation 12	Homicide Firearm 14*
4	Unintentional MVO Crash 2*			Suicide Suffocation 5	Unintentional Other Transportation 13
5	Unintentional Suffocation 2*			Suicide Jump 4*	Homicide Other 8
6				Unintentional Drowning 4*	
All Other Causes	**3**	**6**	**8**	**13**	**44**
Total Number of Injury Deaths	**26**	**13**	**10**	**72**	**121**

Source: California Department of Health Services, EPIC Branch, Vital Statistics Master File. Based on County of Residence.
**Indicates a tie.*

While death is perhaps the most tragic consequence of injury, through advances in emergency medical response and trauma care and through interventions such as safety restraints, more children than ever have survived injury. The pattern of nonfatal injury differs from that of fatal injury.

Leading Causes of Prehospital Unintentional Injury by Age Group in San Diego County, Fiscal Year 99/00

Rank	<5	5-9	10-14	15-19	0-19
1	Unintentional Falls 669	MVO Crash 409	MVO Crash 428	MVO Crash 1,902	MVO Crash 3,081
2	MVO Crash 342	Unintentional Falls 392	Unintentional Falls 405	Unintentional Falls 344	Unintentional Falls 1,810
3	Suffocation/Airway Obstruction 132	Pedalcycle 145	Pedalcycle 252	Other Transportation 153	Pedalcycle 552
4	OD Poisoning 73	Pedestrian 119	Sports/Recreation 127	OD Poisoning 152	Pedestrian 377
5	Burn/Scald 71	Unintentional Cut/Pierce 51	Other Transportation 114	Pedalcycle 133	Other Transportation 317
Total Number of Prehospital Patients	**1,829**	**1,526**	**1,893**	**3,584**	**8,832**

Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Prehospital Patient Records.

To fully assess the impact of injury on our children, it is essential to understand the patterns of nonfatal injuries as well.

Data Driven and Outcomes-based Injury Prevention

"The absence of reliable data on nonfatal injuries to allow proper targeting of interventions…."

The Future of Children
Spring/Summer 2000

In The Future of Children, The David and Lucile Packard Foundation identified the absence of reliable data as a deficiency that has stymied past injury prevention efforts and continues to be a problem today.

San Diego County is fortunate to have a number of nonfatal injury data sources available. However, data on emergency room visits is not collected as part of a comprehensive injury surveillance system. The State of California is requiring hospitals to begin reporting basic information on emergency department patients next year. This data is important to understand the true magnitude of unintentional injury and to develop the most appropriate interventions. The San Diego Safe Kids Coalition is currently supporting efforts by emergency departments throughout San Diego County to develop this type of data reporting system locally.

Many factors influence childhood and adolescent injuries. These factors include behaviors, enforcement efforts, and environmental factors. In order to develop and implement effective prevention efforts, a comprehensive understanding of the pre-event, event, and post-event injury factors is necessary. This report provides data that can be used to improve the understanding of injury-related factors.

The purpose of the report is to provide a snapshot of unintentional injury in San Diego County so that targeted prevention efforts can be designed and implemented. The concept for this document was developed by a committee of the Safe Kids Coalition to provide quick and uniform information on local injuries, Safe Kids Coalition activities and What You Can Do to Prevent Injuries.

The chapters of this report are organized according to Safe Kids Coalition Task Forces. Each Task Force focuses on information and prevention strategies for specific injury types. In each section you will find prehospital data collected by paramedics/emergency medical technician-1s (EMT-1s) who respond to emergency calls for medical assistance. Additionally, some sections include information on trauma injuries and/or deaths from the San Diego County Trauma Registry and Medical Examiner's Records.

Overview of the Data Sources and Definitions

Childhood Unintentional Injuries in San Diego County: A Report to the Community includes three types of injury data: Paramedic/EMT-1 pre-hospital data, San Diego County Trauma Registry data, and San Diego County Medical Examiner data. Each type of data provides unique information about childhood injuries. A very important source of data is how many children and adolescents are seen in emergency departments for injuries. To date, this data is not available.

San Diego County Prehospital Database

San Diego County, Division of Emergency Medical Services receives a prehospital patient record (PPR) for every patient seen by a paramedic/EMT-1. When a call is placed to 911 requesting medical aid, a PPR is created. Every time a paramedic or EMT-1 treats a patient in San Diego County, information about the call is documented. This information is either directly entered into a real time data system called the QA Network or is provided in paper format. This information is invaluable for injury prevention because the paramedic/EMT-1 is the only medical provider who actually sees the location of the injury event and is able to document important patient and environmental facts.

The PPR contains information including:

- Mechanism of injury
- Age, gender, and ethnicity of the patient
- Geographic location of the injury event
- Time and day of injury event
- Information on use of safety devices including seat belts, child safety seats and bicycle helmets

San Diego County Trauma Registry

San Diego County Emergency Medical Services receives a Trauma Registry for every trauma patient admitted to any of the designated trauma center hospitals who meets one of more of the following Modified Major Trauma Outcome Study (MMTOS) criteria: the patient's

length of hospitalization was at least 24 hours, the patient was admitted to the intensive or intermediate care unit, the patient expired due to traumatic injuries or the patient was transferred to or from another acute hospital

When an injured patient meets one or more of these criteria, information about the patient's condition is entered into the San Diego County Trauma Registry. The data in the trauma registry includes:

- Mechanism of injury
- Age, gender, and ethnicity of the trauma patient
- Day and time of the injury event
- Severity of injury

San Diego County Medical Examiner's Records

San Diego County Emergency Medical Services receives an Investigative Summary and Autopsy for every individual who dies in San Diego County from a traumatic injury. Medical Examiner's Records contain the following injury related information:

- Age, gender, and ethnicity of the victim.
- Location where death occurred
- Mechanism of injury

San Diego Association of Governments (SANDAG) Demographic Characteristics

SANDAG produces detailed demographic and population estimates and forecasts for the county and for major statistical areas (MSA) and subregional areas (SRA) within the county. All rate calculations are based upon these estimates.

Definitions

Geographic areas: The geographic areas used in the analysis of the data are MSAs and SRAs of San Diego County as defined by the San Diego Association of Governments (SANDAG).

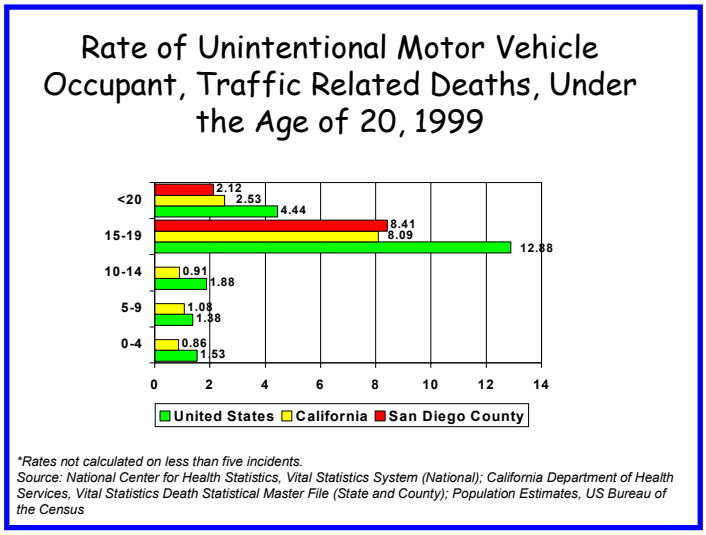
Incidence: The number of occurrences for the specific injury type. Incidence should not be used to compare different racial/ethnic groups, age groups or geographic areas. For these comparisons, use rates that take into account differences in population sizes.

Race/Ethnicity: Race/ethnicity is calculated for this report as Hispanic, non-Hispanic White, non-Hispanic Black, non-Hispanic Asian/Other based on SANDAG estimates of population for January 2000.

Rate: Calculated as incidence per 100,000 population. Rates were calculated using January 2000 population estimates provided by the San Diego Association of Governments (SANDAG). Rates were not calculated for categories with less than five occurrences, due to instability.

Rate = (Incidence * 100,000) / Population.

Motor Vehicle Occupant Crashes



Motor vehicle occupant (MVO) crashes are those involving occupants of vehicles such as cars or trucks. This category does not include pedalcyclists or pedestrians hit by motor vehicles. Those injury types are covered separately.

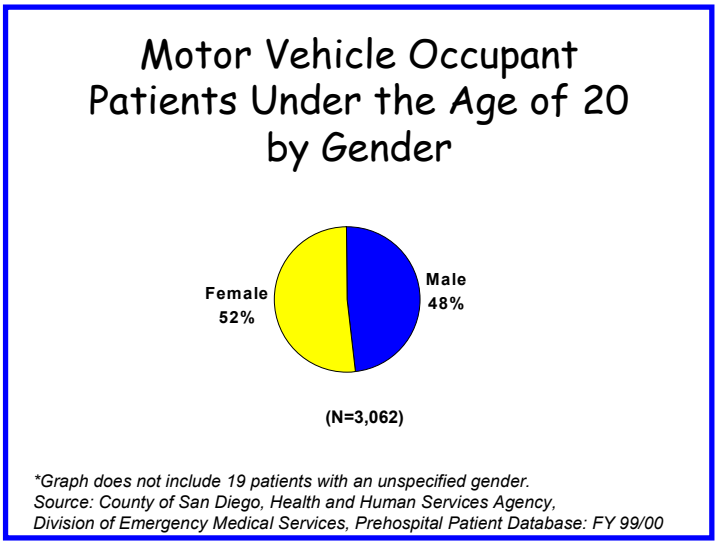
Without question, MVO crashes are the leading cause of unintentional injury death among teenagers. Among 15-19 year olds, the rate of motor vehicle occupant death in San Diego County is much less than that of the United States, but slightly higher than that of California. The very low numbers of deaths in San Diego County for the younger age groups make it not possible to calculate valid rates. Nationally, males have a significantly higher rate of death than females although that does not hold true for San Diego County.

MVO death rates have continued to fall in the face of more vehicles and more drivers on the roadways. This is due in large part to more safety conscious occupants, advances in vehicle design and emergency medical response systems and trauma systems that enable patients to get appropriate medical care quickly, thus saving many thousands of lives every year.

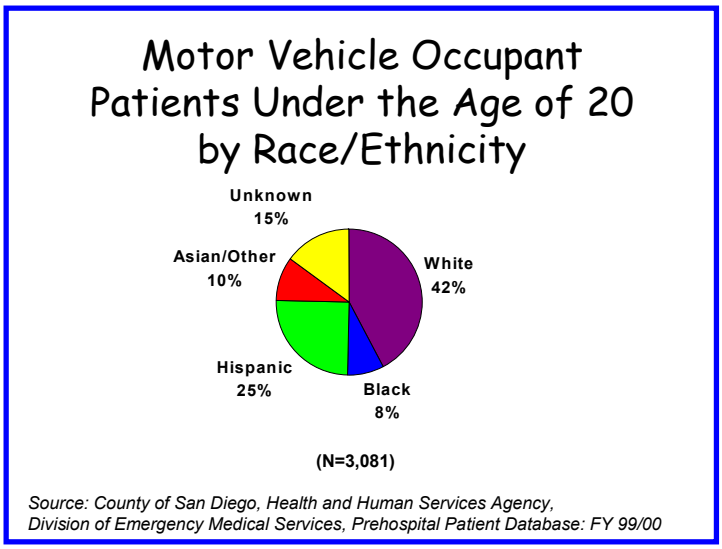
In the following pages information will be presented based on level of severity, starting with those injuries which required a Paramedic/EMT-1 response, to severe injuries which met the

modified Major Trauma Outcomes Study (MTOS) criteria for inclusion in the San Diego County Trauma Registry to fatal injuries in order to show the impact of motor vehicle occupant crashes on the child population of San Diego County.

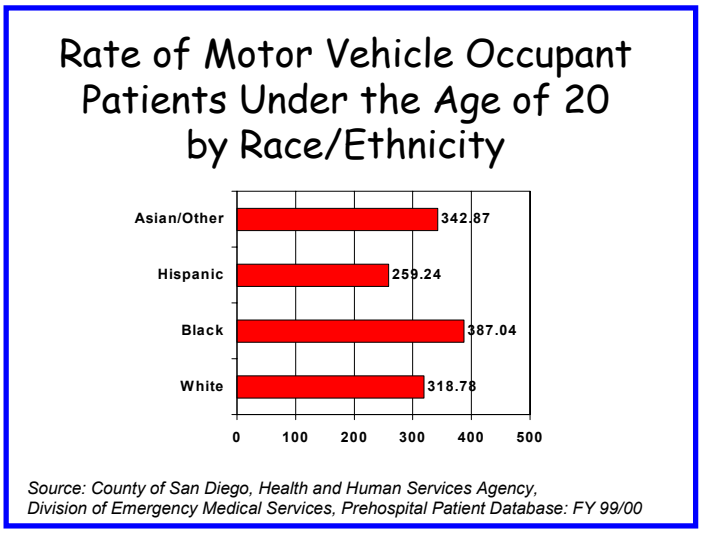
Paramedic/EMT-1 Patients



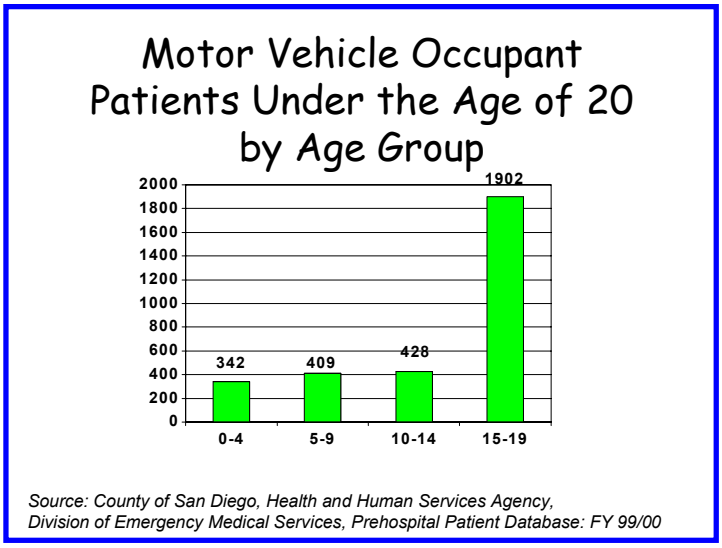
The majority of patients injured in MVO crashes were female (52%). This was very different from other causes of injury, which are overwhelmingly male.



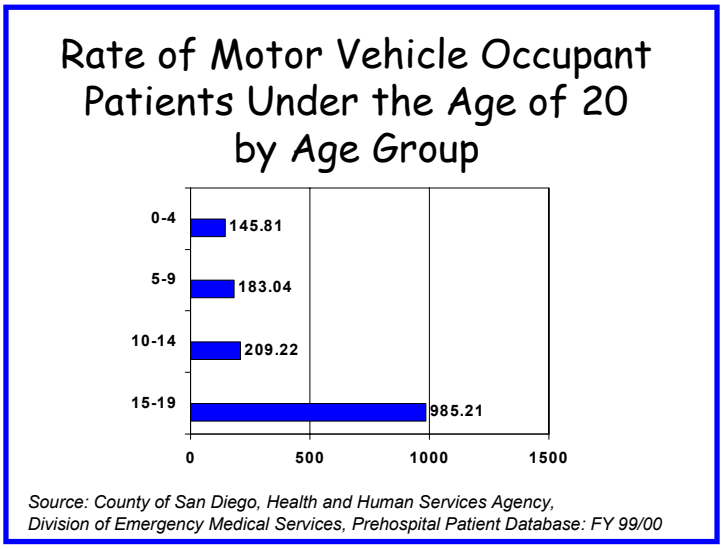
Whites comprised the largest group of injured children with 42%. Twenty-five percent of patients were Hispanic, 8% Black, and 10% Asian/Other. Race/ethnicity was not known for 15% of patients.



Blacks and Asian/Others had the highest risk of injury in motor vehicle crashes (387 and 343 per 100,000 respectively). Black children were 30% more likely than White children and 58% more likely than Hispanic children to be injured in a MVO crash that required emergency response by Paramedics/EMT-1's.



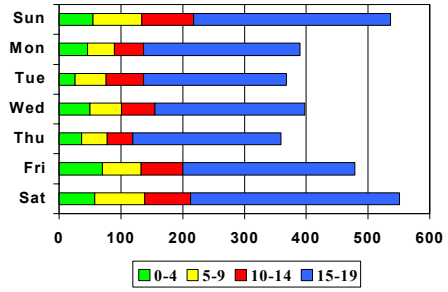
Looking at MVO injuries by 5-year age groups, more occurred among 15-19 year olds than among 0-4, 5-9, and 10-14 year olds combined. The major reason for this is that people start to drive when they are 15-19 years of age.



Drivers in this age group are at high risk because of their lack of experience, and the 15 – 19 year-old passengers are at risk because they are more likely to ride in cars that are being driven by young, inexperienced drivers. The rate of injury by age group reflect the far greater numbers of injuries among 15-19 year olds, whose risk is more than four times higher than children younger than 15.

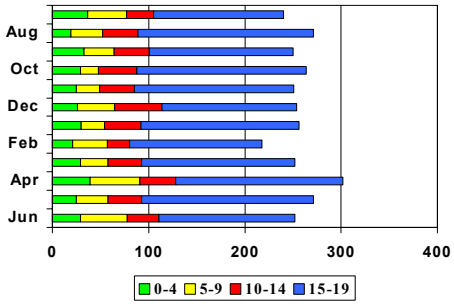
Saturday and Sunday had the most injuries both overall and for each age group. The number of injuries reached its lowest point on Thursday.

Motor Vehicle Occupant Patients by Age Group and Day of Week Injured



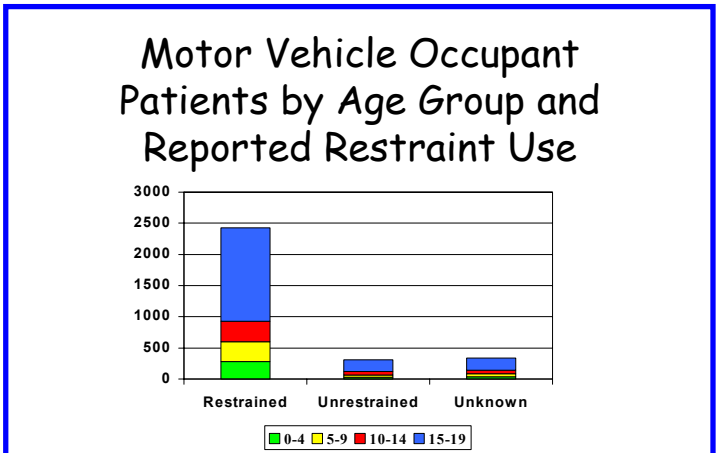
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

Motor Vehicle Occupant Patients by Age Group and Month of Injury



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

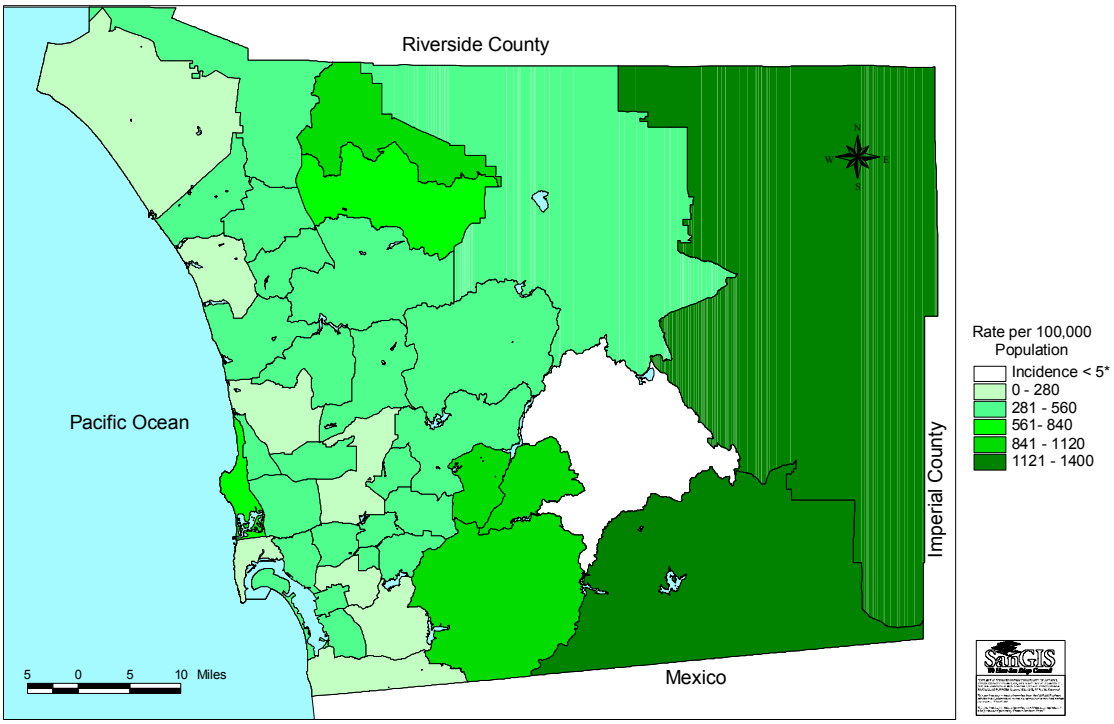
There did not appear to be any distinct seasonal patterns for MVO injuries. However, there were slight increases in the spring and fall months.



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

The paramedics/EMT-1s who respond to injury crashes also report whether safety restraints were used. About 10% of the time, it was not known whether the patient was restrained in the car or not. **A distressingly high percentage were reported to be unrestrained when the crash occurred. Of those where restraint use was known, 8% of children under five, 11% of 5-9 year olds, 15% of 10-14 year olds, and 11% of 15-19 year olds were not using restraints of any type at the time of the crash. Of the 301 children under 5 years of age with a known restraint use, only 183 (61%) were riding in a child seat.**

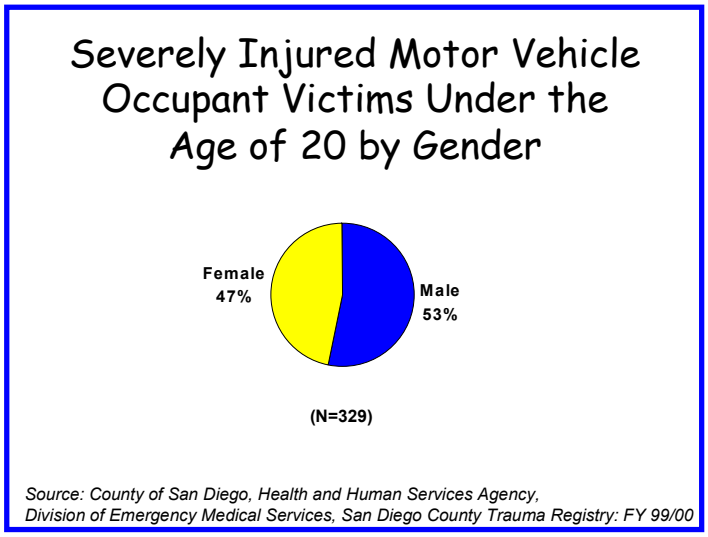
Paramedic/EMT Motor Vehicle Occupant Crash Patients
Under the Age of 20 by Subregional Area



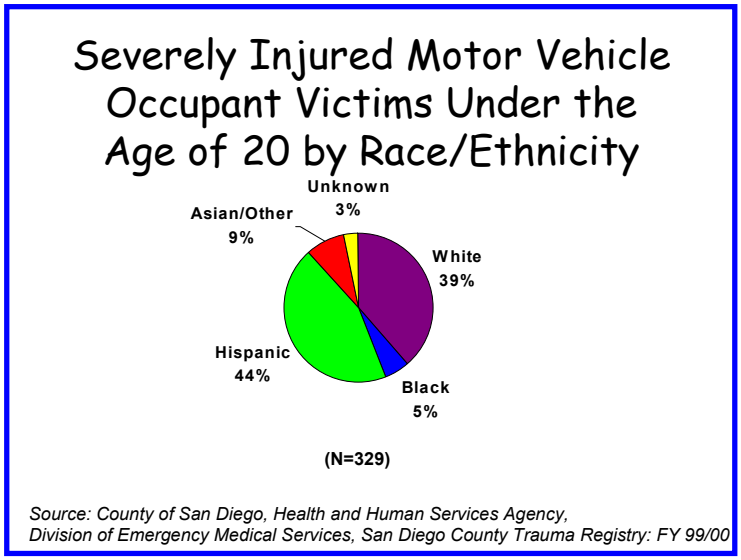
Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Prehospital Database, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.
*Rates not calculated on incidents less than 5.
Note: there were 100 cases with an unspecified SRA.

Geographically, the highest injury rates were seen in some of the more rural areas of the county (Mountain Empire, Pauma, and Alpine). In the more inhabited regions, higher rates were in National City (156/100,000) and the Escondido SRA, (147/100,000).

Trauma Registry Patients



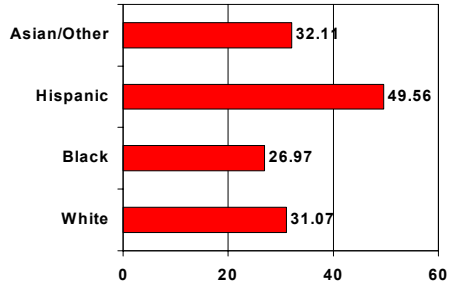
Seriously injured patients were those who met the criteria for inclusion in the County of San Diego trauma registry and survived their injuries. According to this definition, there were 329 MVO crash victims under the age of 20 who were severely injured. Unlike the total number of motor vehicle occupant injuries in which the majority were female, males comprised most of the severely injured MVO victims (53%).



Hispanics made up the majority of severely injured patients (44%), followed by Whites (39%), Asian/Other (9%) and Black patients (5%). Patients in the Hispanic racial/ethnic

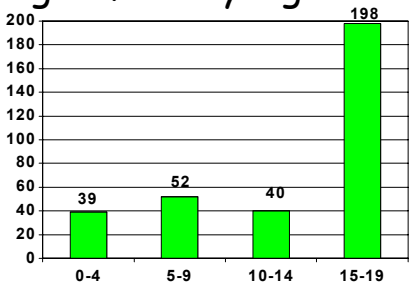
category were at the highest risk of being severely injured in a crash (50/100,000), while the risk for Asian/Other (32/100,000), White (31/100,000), and Blacks (27/100,000) were quite a bit lower.

Rate of Severely Injured Motor Vehicle Occupant Victims Under the Age of 20 by Race/Ethnicity



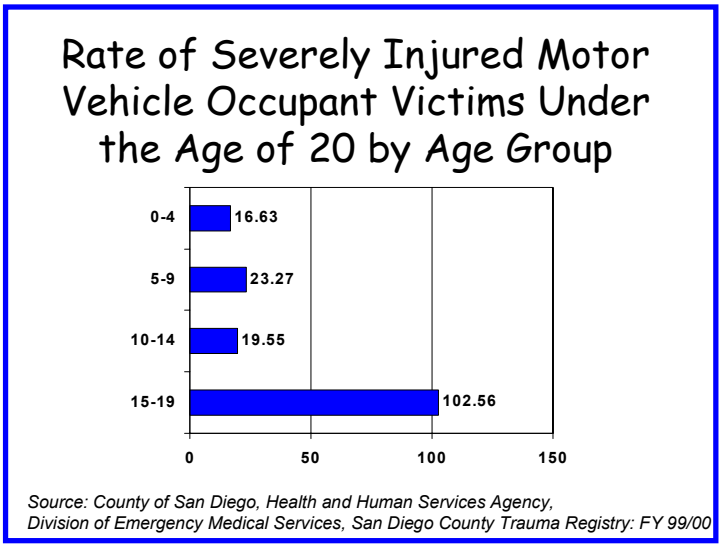
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

Severely Injured Motor Vehicle Occupant Victims Under the Age of 20 by Age Group

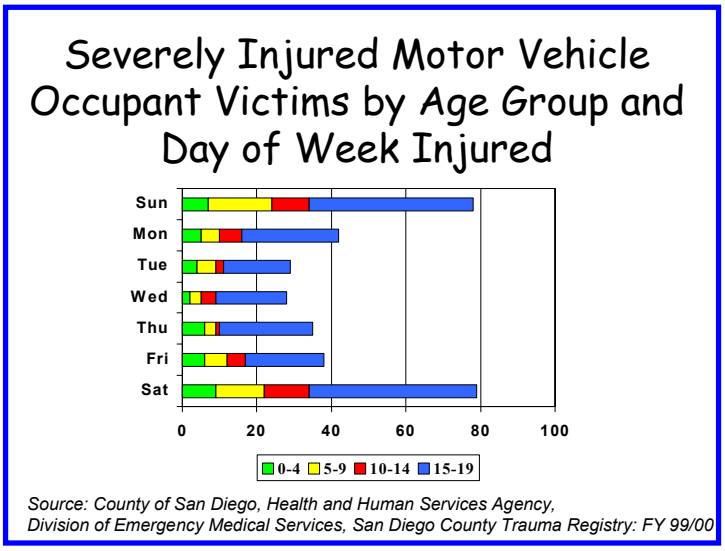


Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

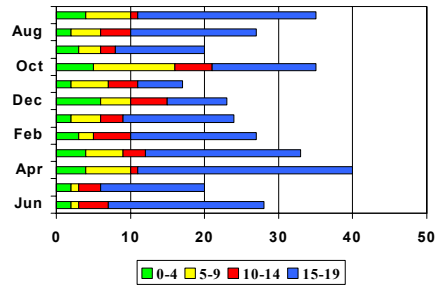
MVO injuries to 15-19 year olds far outpaced those in the younger age groups, both in terms of number and rate of severe injuries. Again, the distinction is most likely due to the fact that people in the older age group are inexperienced drivers or passengers in cars being driven by inexperienced drivers.



By day of week, most of the severe injuries occur on the weekends, with the greatest number by far occurring on Saturdays and Sundays. The months with the highest numbers of severe injuries were April, July, and October. More severe injuries occurred in the summer and fall.



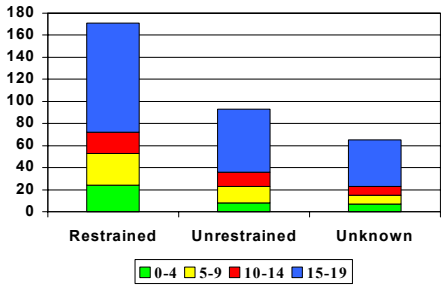
Severely Injured Motor Vehicle Occupant Victims by Age Group and Month of Injury



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

The percentage of severely injured patients who were not wearing safety restraints is worthy of special notice. Twenty-eight percent of the severely injured patients were without restraint. The injuries to many of these patients would have been far less severe had they simply worn their seatbelts.

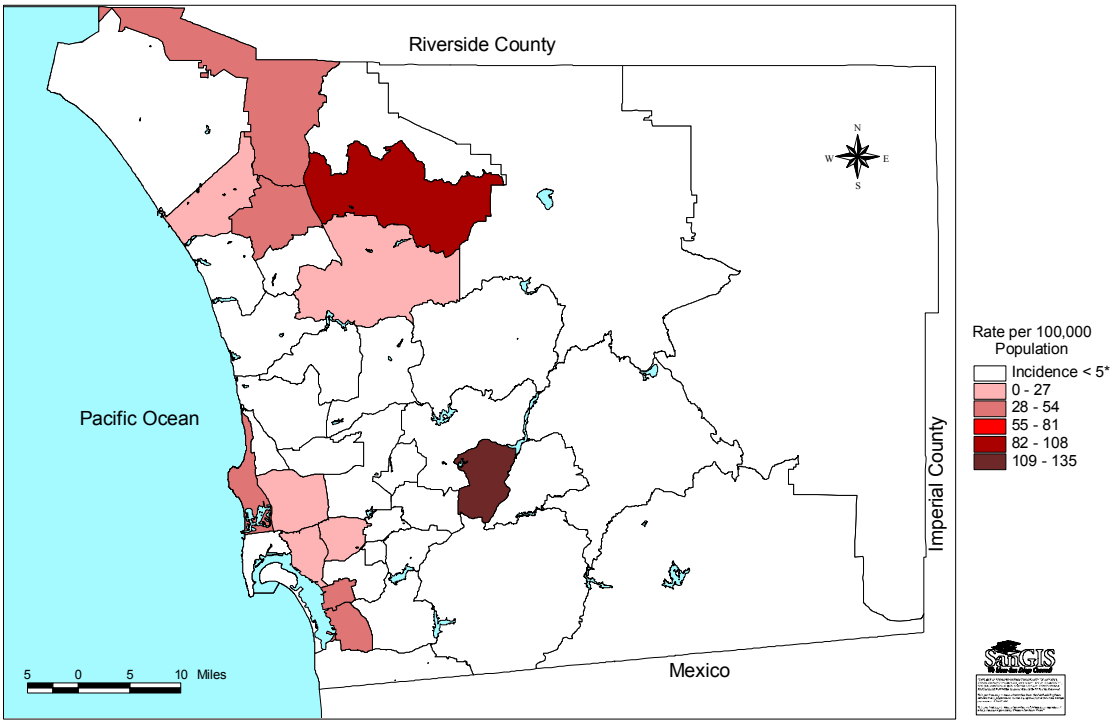
Severely Injured Motor Vehicle Occupant Victims by Age Group and Reported Restraint Use



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

The risk of severe injury due to MVO crashes was highest in the Harbison Crest SRA followed (131/100,000) followed by Valley Center SRA (107/100,000).

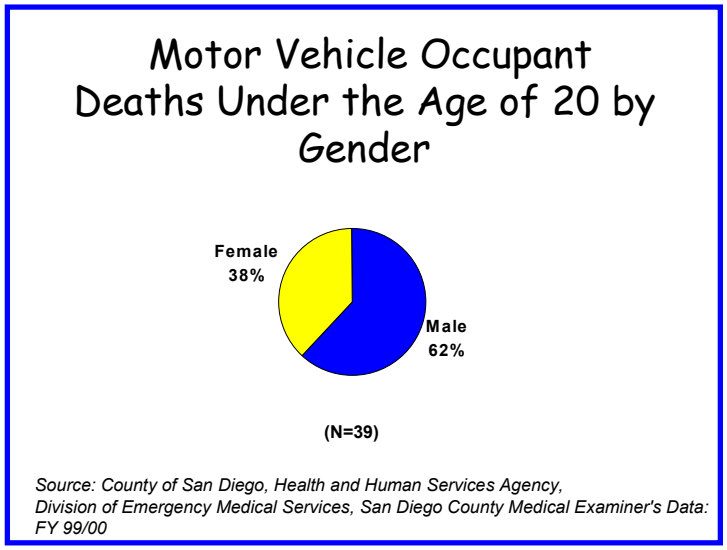
Severe Injury Due to Motor Vehicle Occupant Crash
Under the Age of 20 by Subregional Area



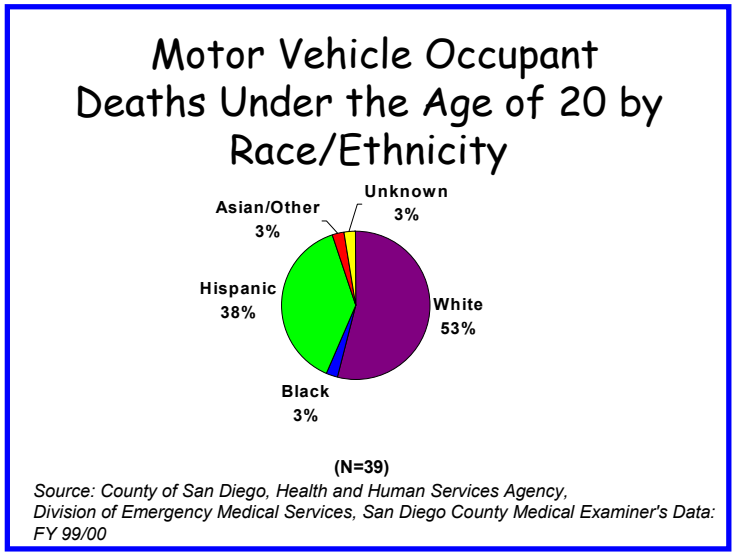
Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Trauma Registry, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.
*Rates not calculated on incidents less than 5.
Note: there were 166 cases with an unspecified SRA.

Deaths

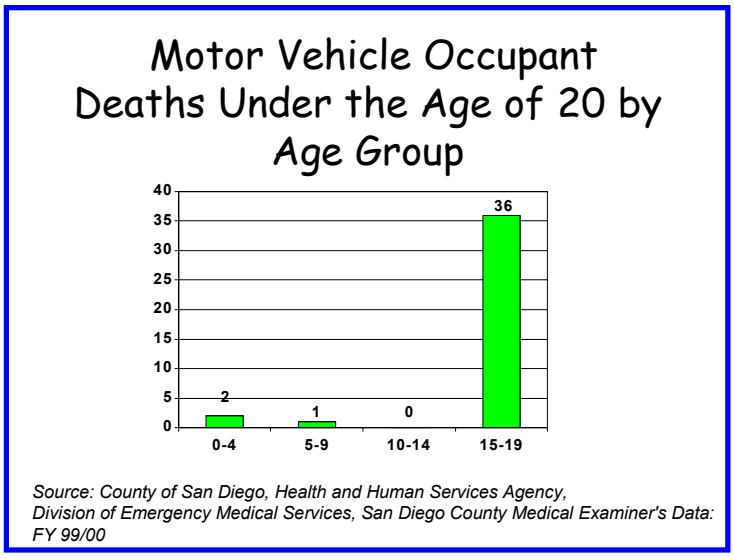
During the year from July 1999 through June 2000, 39 children under the age of 20 died from injuries sustained in MVO crashes. Fifteen (38%) of these were female, and 24 (62%) were male.



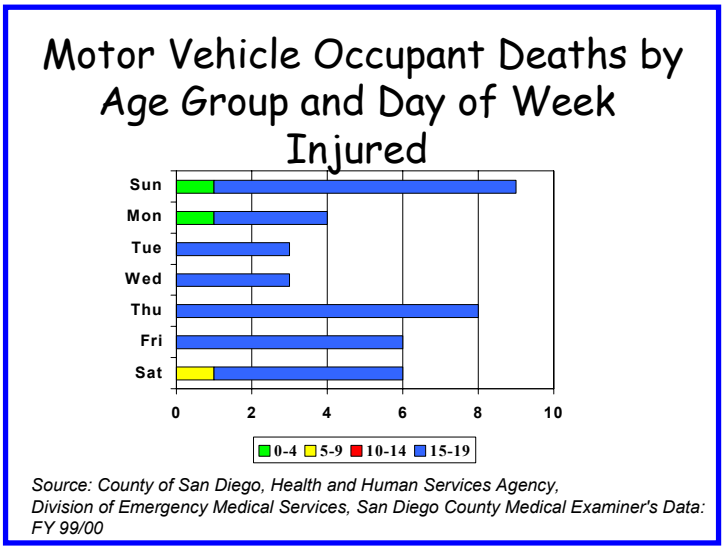
Of these patients, 21 (53%) were White and 15 (38%) were Hispanic. Asian/Others and Blacks each had one death.



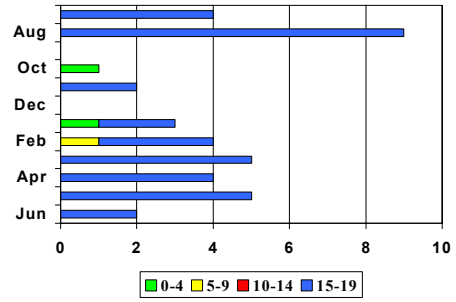
Two victims in the 0-4 year age group, one aged 5-9, and 36 between the ages of 15 – 19 were among the deaths.



By day of week, Sunday (23%) had the highest number of deaths followed by Thursday (21%), Friday (15%), and Saturday (15%). This emphasizes the higher crash rate during the weekend.



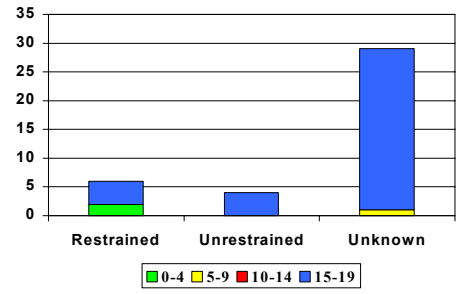
Motor Vehicle Occupant Deaths by Age Group and Month of Injury



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Medical Examiner's Data: FY 99/00

Restraint use was known for only ten of the decedents under 20 years of age. Of those with restraint use documented, only 6 (60%) were reported to be using a restraint. However, it is unknown if 29 (74%) patients were using restraints. When the paramedics/EMTs are striving to save the life of a critical patient, they may be less likely to note whether restraints were used. On the other hand, the high percentage of unrestrained victims in the previously mentioned "severe injury" category is evidence that not wearing seatbelts makes a severe outcome such as death much more probable.

Motor Vehicle Occupant Deaths by Age Group & Reported Restraint Use



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Medical Examiner's Data: FY 99/00

San Diego Safe Kids Coalition Prevention Activities

Occupant protection continues to play an important part of the Coalition's activities. With the passage of the new child occupant protection law, commonly referred to as the "Booster Seat Bill", increased education was needed to inform parents and care givers of the new law and to provide education concerning the best type of booster seat to purchase.

Harloff BMW approached the Coalition about forming a new program entitled, "Project Safe Seat", which was focused on child passenger safety incorporating business sponsors to promote child safety seat check ups and generate revenue to support Coalition activities. This highly successful program produced media coverage for several safety seat check ups and provided over 50,000 child passenger safety brochures to the community at no cost to the Coalition. Additionally, 21st Century Insurance came on as a program sponsor, provided funding for additional check up events and created an affinity campaign to help support the Coalition. The success of this program has resulted in additional partners such as Evan's Tire and Cox Communications who continue to support the check ups throughout San Diego County. We are anticipating renewal of the Project Safe Seat funding to continue this program.

Additionally, Safe Kids worked with the San Diego County, Chronic Disease and Injury Prevention Division of the Health and Human Services Agency in the development and implementation of a "Car Seat Helpline". This program provided a resource for parents and caregivers for answers to questions regarding the new "booster seat law". In conjunction with this program, Safe Kids distributed booster seats to needy families in San Diego County utilizing seats provided by the County and the Boost America Program through United Way of San Diego.

Current California State Law requires children to be in a child safety seat until they are 6 years of age or 60 pounds. Five to nine-year-olds are at greater risk of injuries because they cannot be properly restrained with an adult size lap/shoulder belt. Traditional belt systems are not designed for children smaller than 4 foot 9 inches and 80 pounds. In order to be properly restrained they need to use a belt positioning booster seat.

Prevention Activities You Can Do

- Be a role model by making sure you wear your lap/shoulder belt each and every time you ride in a motor vehicle. Children look to adults to set the example.
- All front seat occupants should sit as far back from the air bag as possible: for drivers a minimum of 12 inches, for passengers a minimum of 24 inches, as recommended by the National Highway Traffic Safety Administration.
- Make sure that all children riding in your vehicle are properly restrained for their age and weight. Make sure this is the case when they ride with others.
- Make sure that child safety seats are properly installed. If in doubt, have your seats checked at a Safe Kids Safety Seat Check-Up Event.
- Have all children under the age of 12 ride in the back seat of the vehicle whenever possible. Crash data shows that the front passenger seat is the most dangerous seating position.
- Pregnant moms should be correctly restrained with a lap/shoulder belt throughout their pregnancy. Information on correct positioning of lap/shoulder belts during pregnancy can be obtained from the Safe Kids Coalition.

Local EMS Research

Child Passengers Injured in Alcohol-Related Crashes in San Diego County

Background: Motor vehicle crashes are the leading cause of death and serious injury to children younger than 15 in San Diego County. National studies report alcohol involvement in more than 20% of motor vehicle-related deaths in this age group, and that over 60% of children who died in alcohol-related crashes were passengers of an intoxicated driver. This study investigated injuries to children under 15 in alcohol-related motor vehicle crashes in San Diego County, how many children were riding with an intoxicated driver, and whether passengers of drunk drivers were less likely to be properly restrained in the vehicle.

Methods: Data from the California Statewide Integrated Traffic Records System (SWITRS) for motor vehicle occupant (MVO) crashes reporting at least one injury to a passenger under the age of 15 in San Diego County from 1996 through 1999 was examined. A detailed analysis of injuries occurring in DUI-related crashes was performed. DUI was defined as alcohol or drug impairment on the part of the party at fault being the cause of the crash.

Results: From 1996 through 1999, 6,202 children under 15 were injured or killed as passengers in MVO crashes in San Diego County. Of these, 341 (5.5%) were in alcohol-related crashes, and 103 (30%) were passengers in the vehicle being driven by a impaired driver. Child passengers of impaired drivers were significantly less likely ($p=0.03$) to wear active restraints than passengers in crashes where the other driver was at fault. Injuries to passengers of impaired drivers were more severe than injuries to passengers where the driver was not under the influence. For all DUI crashes, the highest incidence was seen between 1 and 2 in the morning. DUI crashes involving children, on the other hand, peaked between 6 and 7 in the evening.

Conclusions: Seventy percent of child victims in DUI crashes were not in the DUI driver's car, however 3 of every 10 children injured in DUI crashes were passengers of the impaired driver. Passengers in the DUI driver's car suffered more severe injuries than passengers whose drivers were not impaired. In contrast to DUI crashes overall, which peaked in the early morning hours, DUI crashes involving children had their highest point during the dinner hour. These findings emphasize the need to educate parents about the danger, not only to themselves, but also to their passengers while driving under the influence of alcohol or drugs.

Local EMS Research

Evidence from the Field: How well are we Protecting Children?

Background: The National Highway Traffic Safety Administration (NHTSA) has estimated that 80 to 90% of children are incorrectly restrained in motor vehicles. Possibilities for errors in car seat installation and adjustment include connection of child seat to safety belt in vehicle, snugness of internal harness straps, and placement of the retainer clip, among other factors. Another issue in child restraint safety is that the type of restraint used may not be appropriate for the child's age, size, or developmental stage. The wide selection of infant/child safety restraints and the numerous vehicle designs have compounded this issue to the point that trying to find an infant/child restraint seat that is compatible with the vehicle seat is a source of frustration for many car seat inspectors and parents alike. Current efforts to remedy this situation include inspecting child restraints, educating parents on their proper installation and use, and the phase in of the Universal Child Safety Seat System, a universal anchorage system for car seat and car manufacturers.

Methods: Data was collected from 39 child car seat inspection events occurring at various locations throughout San Diego County during a 19-month period (2/1999 to 9/2000). These events consisted of an intensive inspection of each child restraint for proper installation and adjustment. A standard form was used to record errors, and recommendations were made to parents regarding proper restraint adjustment and, if necessary, the appropriate type of restraint.

Results: A total of 858 seat positions were checked during these events, in which 96.4% had at least one error recorded. Inspections were performed on rear-facing seats (50%), forward facing seats (40%), and other types of restraints (10%). Misuse was reported in 95.7% of rear-facing seats and 97.6% of forward-facing seats. For rear-facing seats, 65.6% of those checked did not meet the criteria for "safety belt holding seat tightly in vehicle" and 57.3% of those checked did not meet the criteria for "harness straps snug". For forward- facing seats, 76.7% of those checked did not meet the criteria for "safety belt holding seat tightly in vehicle" and 57.8% of those checked did not meet the criteria for "harness straps snug".

Conclusion: Finding that fewer than 5% of car seats checked had no misuse validates NHTSA's estimates. The impact of these findings is extremely disturbing and poses many concerns for the public health community. One of these concerns is that for every type of car seat, more than 60% were not held tightly in the seat of the vehicle. The risk here is if the seat is not snugly installed it could be ejected or become dislodged resulting in serious injury to the child.

Local EMS Research

Impact of a New Booster Seat Law

Background: The National Highway Traffic Safety Administration (NHTSA) has estimated toddler safety seat use at 91%, up 31% from 1996, due in part to child safety seat legislation. However, booster seat use was estimated at only 10% for children who were too small/young for adult vehicle safety belts. In 1/2002, California enacted a new child restraint law extending protection up to age 6 or 60 lbs.

Methods: For 1999-2001, descriptive/geographic analyses were performed on data from 45 child restraint inspections events held throughout a large metropolitan area. Comparison with post 1/2002 law will include booster use, misuse/error by booster type, age, weight, sibling seats inspected, and vehicle type.

Results: Prior to the 1/2002, boosters comprised of 5.6% (59/1046) of seats inspected. 37% demonstrated at least one error. There was a significant difference in misuse by booster type: 80% of shield and 28% of belt positioning boosters had at least one misuse (RR=2.96). 75% of children for which boosters were inspected also had a sibling's seat inspected. Majority were younger and in rear-facing or forward-facing seats. 60% in shield and 11% in belt positioning boosters weighed less than 40lbs. Comparison to post 1/2002 data from 12 inspections during 1/2002 to 6/2002 will be presented.

Conclusion: The low number of boosters inspected prior to 1/2002 is comparable to the 10% estimated by NHTSA. This comparison of use/misuse, demographic and socioeconomic factors is a unique opportunity to evaluate the impact of the new law.

Local EMS Research

Motor Vehicle Occupant Crashes Among Teens: Impact of the Graduated Licensing Law in San Diego

Background: On July 1, 1998, California Senate Bill 1329, which revised the restrictions on drivers under 18 years of age, became operative. The new law requires that new drivers have an instruction permit for six months before obtaining a driver's license, whereas the previous law only required the person hold an instruction permit for 30 days. Additionally, new licensees may not transport passengers under 20 years of age without adult supervision during the first six months, or drive between the hours of 12:00 am and 5:00 am during the first 12 months after receiving a provisional license. This study was undertaken to determine whether crash rates and passenger injury rates in the County of San Diego had declined following the enactment of this legislation.

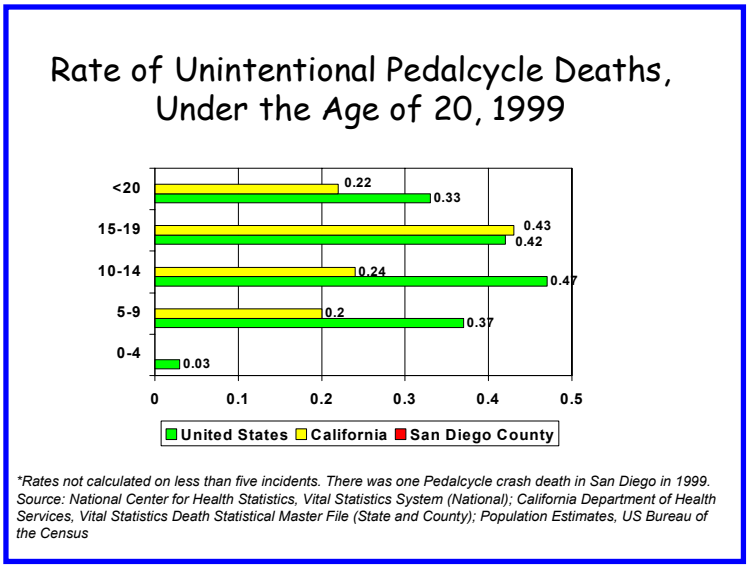
Methods: Motor vehicle crash data were examined for 1996 through 1999. Factors of interest included the number of injured passengers in the vehicle, the movement preceding collision, age of injured passengers, and time of day by the driver's age and year of crash. Types of crashes and violation categories were also compared for different age groups. The impact of the graduated licensing law was evaluated by comparing crash rates per 1,000 licensed drivers and teen passenger injury rates per 100,000 population in crashes involving 16-year-old drivers during 1999 with corresponding data from 1997. 1997 was chosen as the comparison year instead of 1998 to avoid bias resulting from the potential rush on the part of 16-year-olds in 1998 to get their driver's licenses before the graduated licensing law took effect.

Results: In spite of a 7% decline in the number of licensed 16-year-old drivers, the number of crashes involving 16-year-old drivers during 1999 was nearly unchanged from 1997 (416 vs. 415). The crash rate increased from 47.5 to 48.9 per 1,000 licensees in this time period (NS). The injury rate for 15 to 19 year old passengers of 16 year old drivers declined appreciably, though not statistically significantly from 74 to 66 per 100,000 population. The number of crashes between midnight and 5 a.m. was very low prior to GDL, and did not change significantly following the legislation.

Conclusions: Based on these study findings, the graduated licensing law in California has had no significant effect on the number or rate of teen driver injury crashes, despite preliminary data which showed a large drop in the number of new 16-year-old drivers during 1999. However, the decline in the rate of teen passengers injured while riding with 16-year-olds during this time period is encouraging.

Pedalcycle Crashes

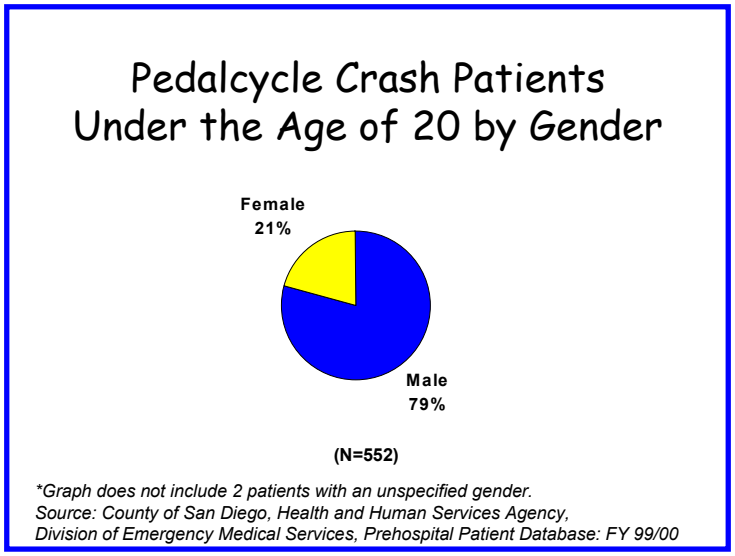
The pedalcycle category includes bicycles, tricycles, quad cars and other pedal powered forms of transportation. Children riding pedalcycles are especially vulnerable to injury because they often ride together with motor vehicle traffic, yet are as difficult to see and as unprotected as pedestrians.



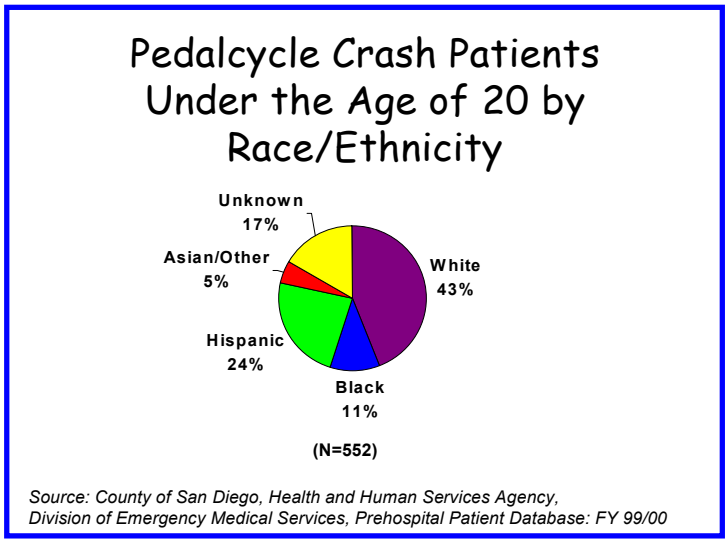
There was only one pedalcycle related death in San Diego County in 1999. However, in San Diego County, pedalcycle crashes are the third leading cause of severe injury among 10-14 year olds. This age group consistently has the highest rates of pedalcycle death and injury among children due in large part to their greater use of bicycles as transportation putting them in traffic. Among children under 20 years of age, California has a lower rate of pedalcycle related deaths among children than the United States. This can be attributed to the early passage and enforcement of the mandatory helmet law for all children under age 18. There are numerous efforts to pass similar legislation in other states.

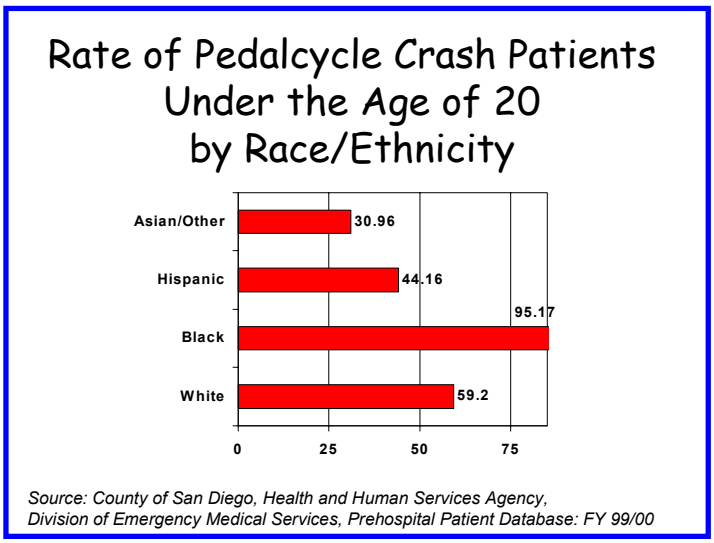
Paramedic/EMT-1 Patients

Males were the major victims of pedalcycle crashes, comprising 79% of patients under 20. Whites made up the largest racial/ethnic group among pedalcycle crash patients (43%). Hispanics comprised 24%, Blacks 11%, and Asian/Others 5%. Race/ethnicity was unknown for 17% of patients.

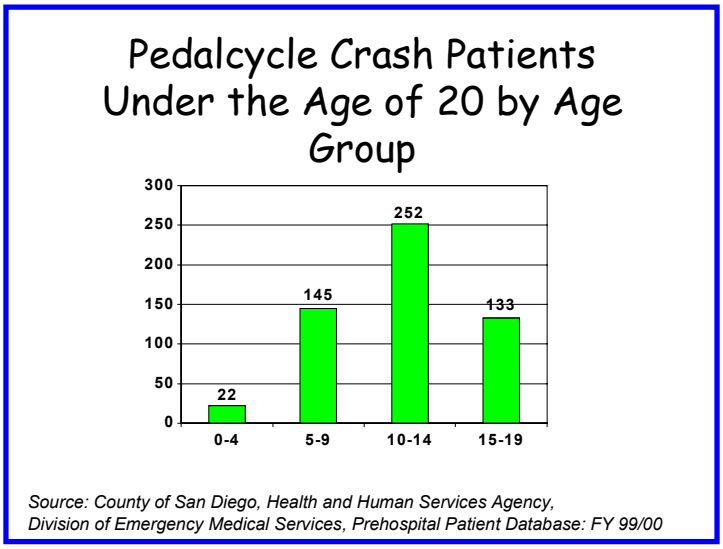


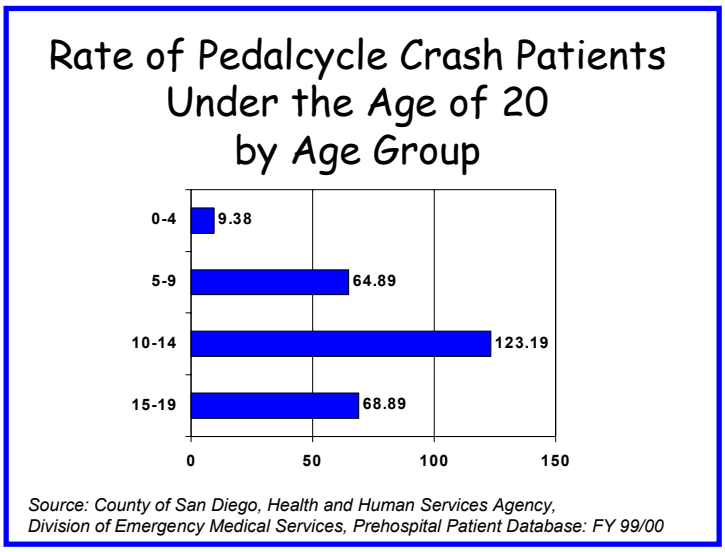
When race/ethnicity was known, Black children were at the highest risk of being injured in a pedalcycle crash (95/100,000), followed by Whites (59/100,000), Hispanics (44/100,000), and Asian/Others (31/100,000).



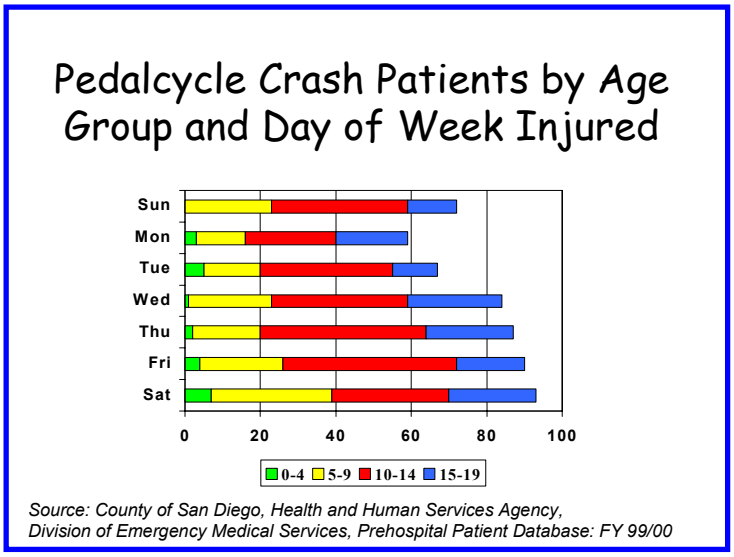


Pedalcycle injuries peaked in the 10-14 year age group, where the number and rate of injuries were nearly twice that of 5-9 and 15-19 year olds. This is not surprising, considering that children in this age group may be seen as responsible enough to transport themselves, with the drop-off in the 15-19 year age group coinciding with the time when they obtain their driver's licenses.

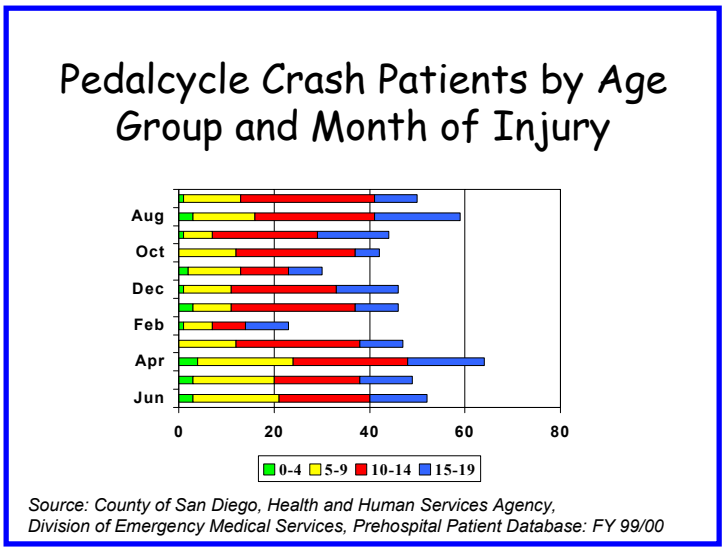




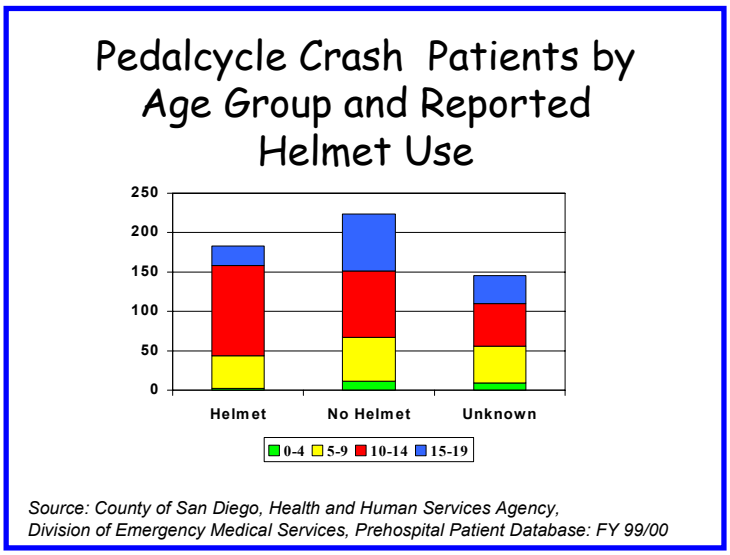
Pedalcycle injuries do not vary a great deal by day of week, although more crashes occurred on Fridays and Saturdays than on any other day.



With San Diego's sunny climate, people are able to ride bicycles virtually year-round. The month with the fewest injures by far was February, and the number of injuries were highest in the warmer months.

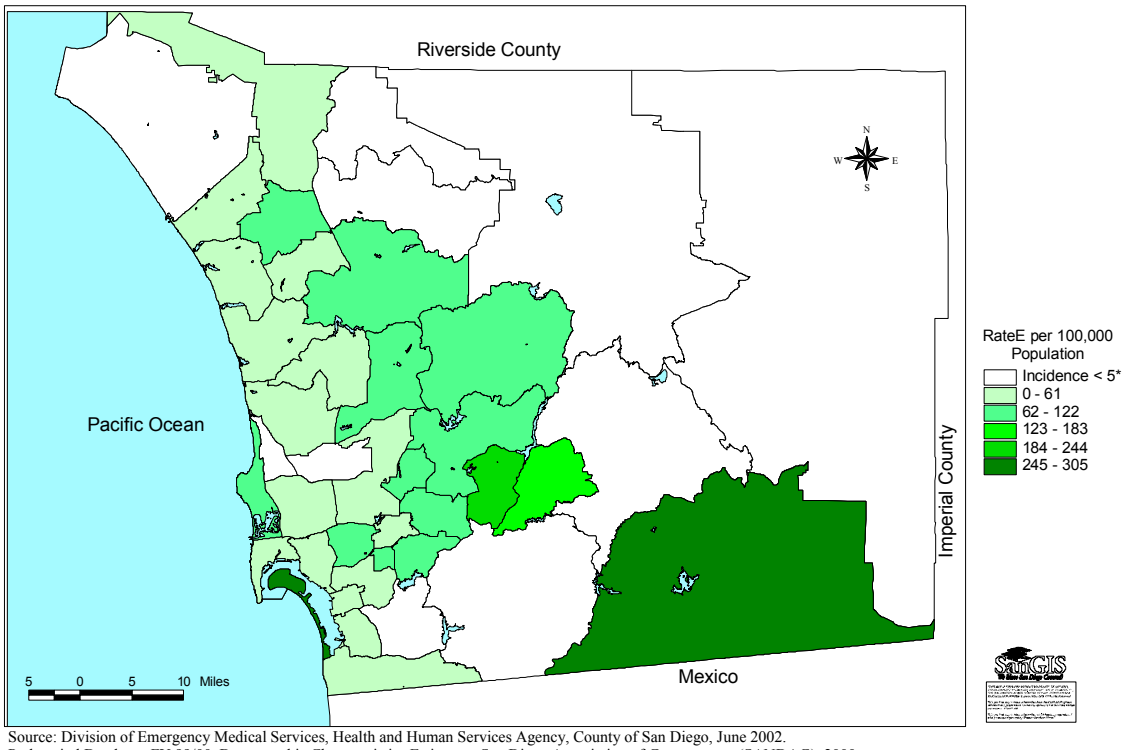


In spite of the increased vulnerability of pedalcyclists to injury, of those situations in which helmet use was reported, fewer than half of those involved in crashes were reported to have used a helmet. The percentage of patients in which helmet use/no use was recorded, use was especially low in the 15-19 year age group (26%).



The Subregional areas with the highest rates of pedalcycle injury were Coronado (273/100,000) and Harbison Crest (235/100,000). The Coronado SRA includes many popular areas for recreational cyclists.

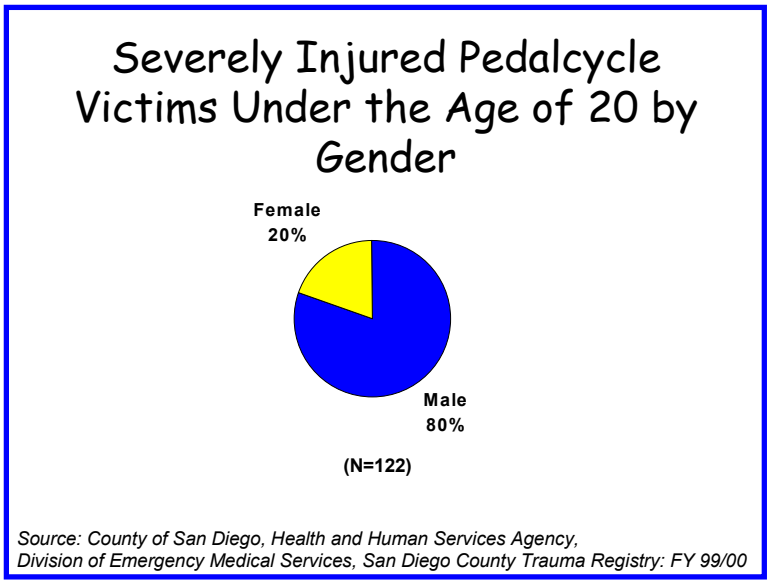
Paramedic/EMT Pedalcycle Crash Patients
Under the Age of 20 by Subregional Area



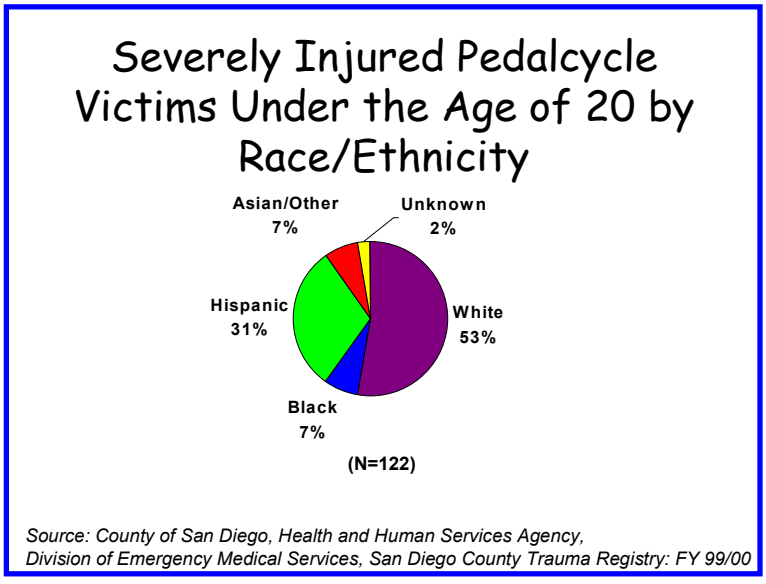
Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Prehospital Database, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.
*Rates not calculated on incidents less than 5.
Note: there were 17 cases with an unspecified SRA.

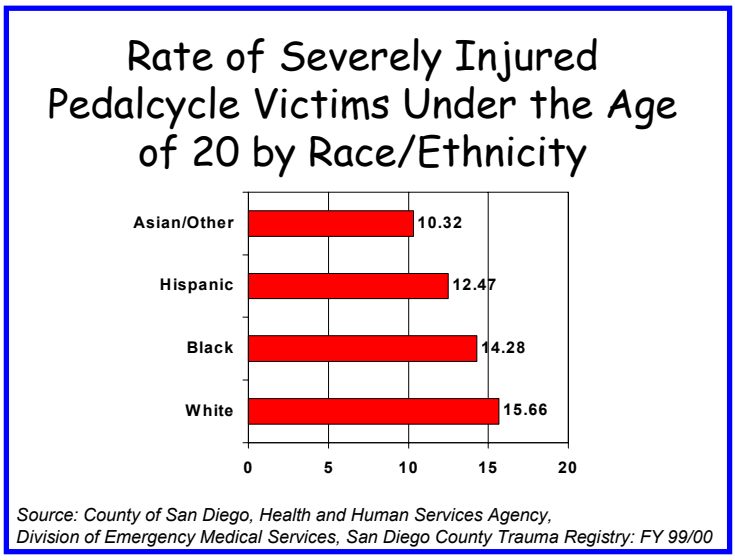
Trauma Registry Patients

From July 1999 through June 2000, 122 cyclists under the age of 20 met the criteria to be included in the San Diego County Trauma Registry and survived their injuries. Eighty percent of these were male.

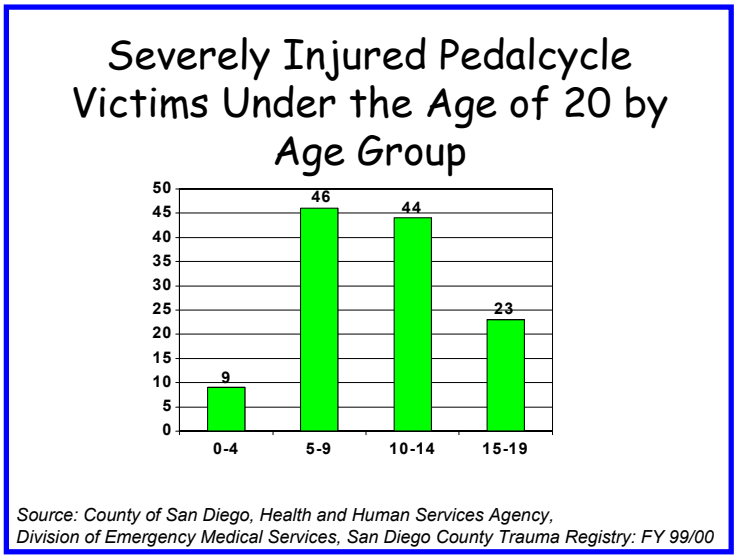


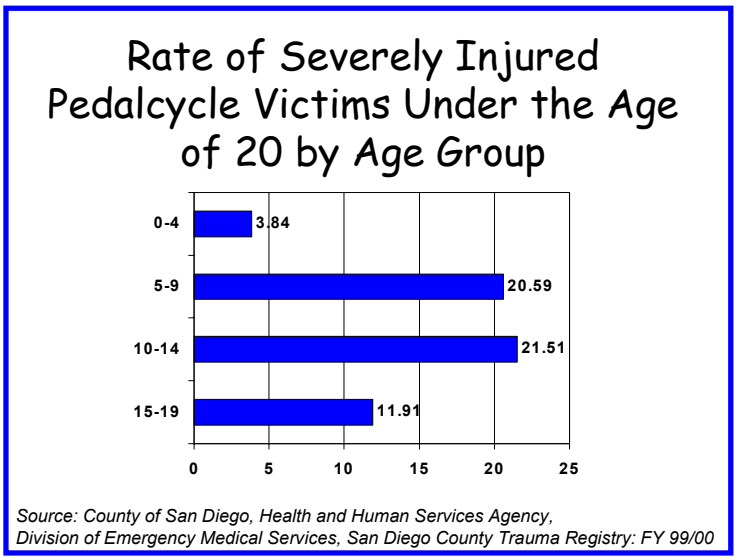
The majority of severely injured patients were White (53%), followed by Hispanic (31%), Black (7%), and Asian/Other (7%). The risk of being severely injured in a pedalcycle crash was slightly higher among White children (16/100,000 children under 20).



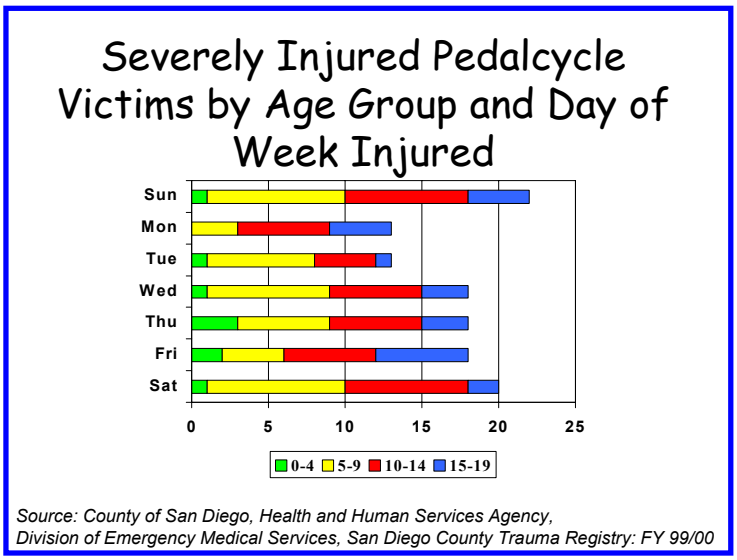


While children aged 10-14 years had the highest numbers and rates for pedalcycle injuries overall, severe injuries in this age group are not very different from 5-9 year olds. This means that injuries among 10-14 year olds tend to be less severe than injuries to victims in the other groups. Victims in the 5-9 age group may be more difficult for drivers to see and react to, and the 15-19 year olds, as discussed previously, may be at increased risk for a severe outcome because of their lower rate of helmet use.

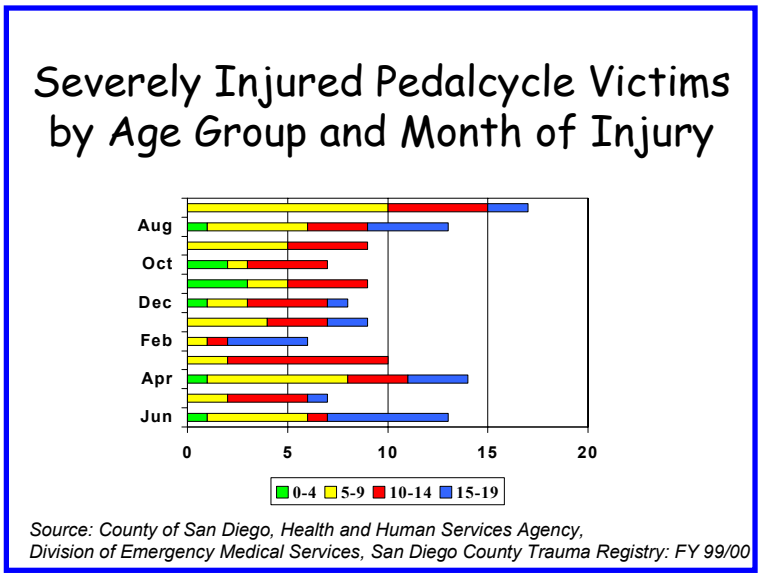




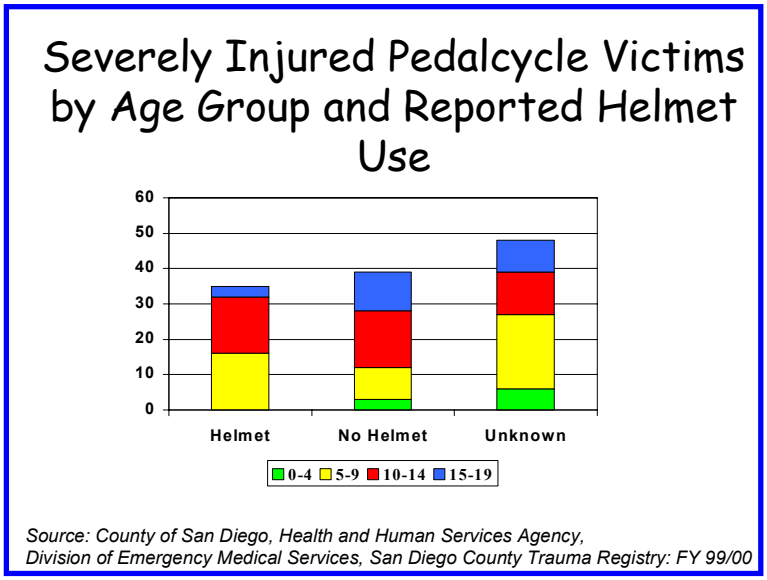
There was no clear pattern of severe injury by day of week. The highest numbers of injuries to 5-9 and 10-14 year olds occurred on Saturdays and Sundays, while the 15-19 year age group peaked on Fridays.



Severe injuries to cyclists clustered in the spring and summer months, with very low numbers occurring from October through February.

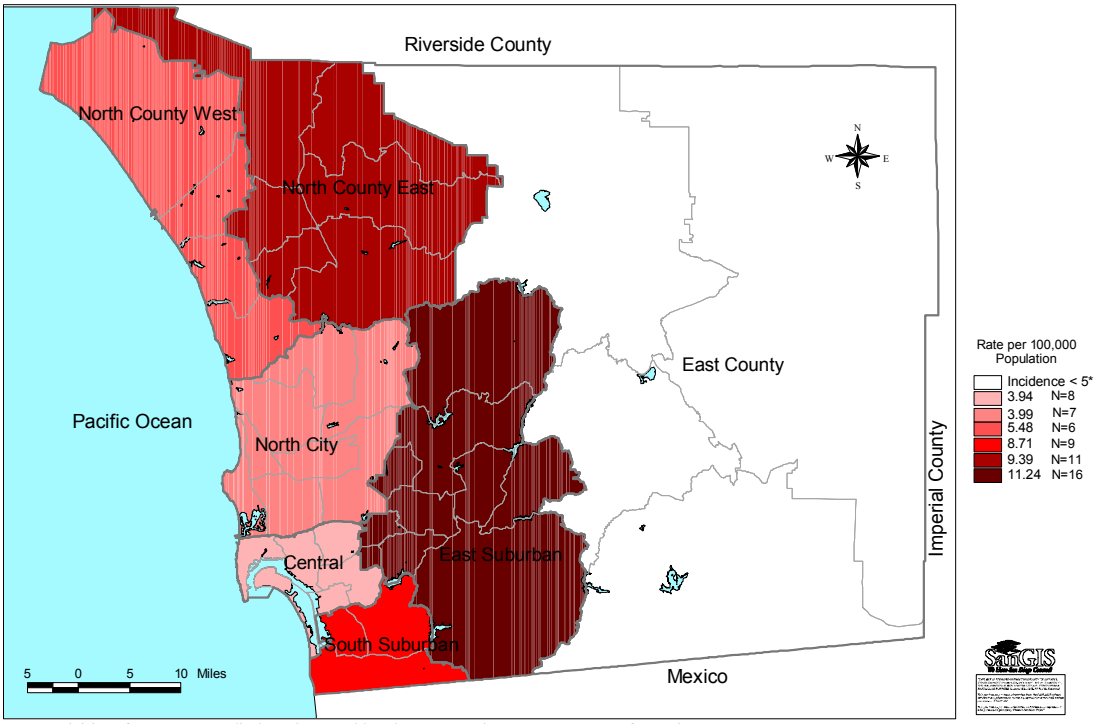


Many of the injuries to cyclists would have been less severe if the riders had worn helmets. Only 47% of severely injured patients were wearing a helmet at the time of the crash in patients with known use/no use.



The less populated areas of the county had the highest rates of severe pedalcycle injury. In these areas, cyclists may be more likely to ride alongside motor vehicle traffic moving at a high rate of speed on more narrow, rural roads.

Severe Injury Due to Pedalcycle Crash
Under the Age of 20 by Major Statistical Area



Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Trauma Registry, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.
*Rates not calculated on incidents less than 5.
Note: there were 60 cases with an unspecified SRA.

San Diego Safe Kids Coalition Prevention Activities

With the passage of the California State Law requiring all children under age 18 to wear bicycle helmets, there was an immediate reduction in the number of children seriously injured or killed as a result of brain injury from severe head trauma. The Safe Kids Coalition was a strong supporter of this legislation and has been working to increase the use of bicycle helmets since that time. In the first year following the passage of the helmet law, when helmet use was known, 31% of children involved in injury crashes were wearing helmets. This percentage has steadily increased to 45%. The number of deaths due to pedalcycle crashes has dropped to zero while the number of survivable injuries has increased. Clearly with only a 45% compliance rate, increased Coalition activities are needed in this area.

Helmet use represents only a piece of the pedalcycle injury prevention puzzle. Cyclists must also use safe cycling practices to help insure their safety on the roadways. Allstate Insurance Foundation provided the Coalition with a grant to provide helmets and safe cycling instruction to children in San Diego County. These events were conducted in National City, El Cajon and Encinitas providing much needed helmets to over 400 children. Participants ranging in age from 3 to 15 were instructed on the rules of the road, proper helmet fit and how to inspect and maintain their bicycles for safety. Safe Kids Coalition partners have been working to provide safe cycling instruction to community groups through participation in bicycle rodeos and special bicycle safety programs. Additionally, the Safe Kids Coalition partnered with the Santee Wal-Mart and Bell Helmets to conduct a Rally for Bike Safety on May 20, 2000. The City of Santee issued a proclamation declaring May 20th to be Bicycle Safety Day in Santee. The Santee School District distributed announcement fliers to over 9,000 students and preschool students in the community. Participants ranging in age from 3 to 15 were instructed on the rules of the road, proper helmet fit, and how to inspect and maintain their bicycles for safety.

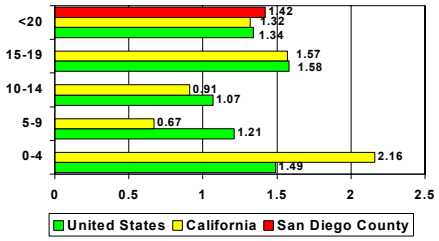
Prevention Activities You Can Do

- Always wear a helmet when bicycling. Model appropriate safety behavior for your children. If you don't wear a helmet, chances are your children won't once they are out of your sight.
- Make sure your helmet fits properly. A properly fitted helmet must sit flat on the head, not tilted to the front or rear, with snugly fitted straps. A helmet hanging from the handlebar cannot protect your head. If you need in assistance in checking the fit of your helmet or your child's helmet, contact the Safe Kids Coalition.
- Be sure that your child always wears a helmet regardless of where they are riding. Many injuries occur to very young children not wearing helmets while riding tricycles or motorized kiddie carts in driveways or on sidewalks.
- Before your child rides in traffic, make sure your child knows the rules of the road for your community. Local traffic laws vary between law enforcement jurisdictions and rules have changed greatly over time.
- Ride with your child until you are confident in their abilities to ride safely. Stress to your child that riding a bicycle is a serious responsibility and that they must conform to traffic laws for their own safety and the safety of others.

Pedestrian Crashes

Pedestrian crash related injuries pose a particular threat to the elderly and the young. Nationally, a child is killed in a pedestrian crash every 90 minutes and rates are highest

Rate of Unintentional Pedestrian, Traffic Related Deaths, Under the Age of 20, 1999

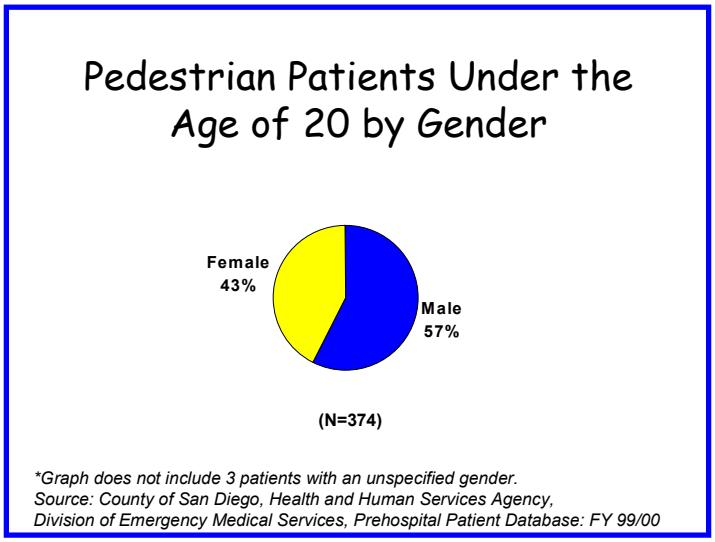


*Rates not calculated on less than five incidents.
Source: National Center for Health Statistics, Vital Statistics System (National); California Department of Health Services, Vital Statistics Death Statistical Master File (State and County); Population Estimates, US Bureau of the Census

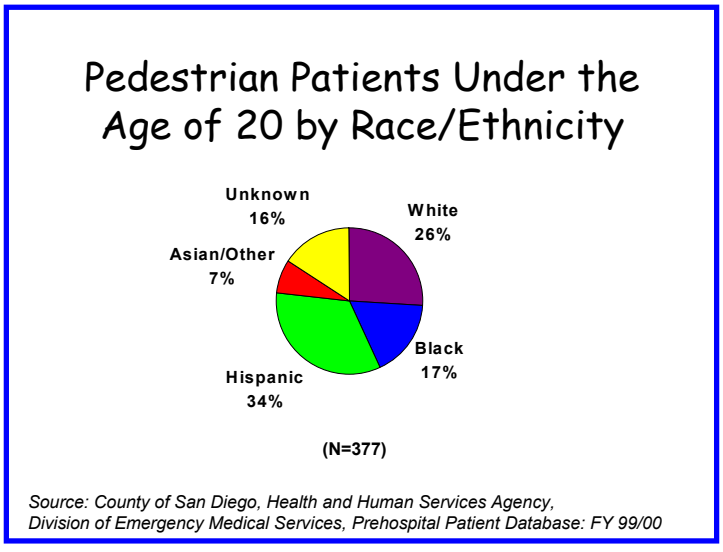
among 15-19 year olds and lowest among 10-14 year olds. In San Diego, the number of pedestrian deaths was too low to calculate age specific rates, however the overall rate of pedestrian death for children under age 20 was similar to those of national rates. There are a number of factors that contribute to childhood pedestrian injuries including traffic volume and patterns, geographic location of child attractions such as schools, parks and convenience stores, as well as the age and pedestrian experience of the child. Younger children tend to be injured darting out into traffic while older children are more likely to be injured at busy intersections and are less often at fault.

Paramedic/EMT-1 Patients

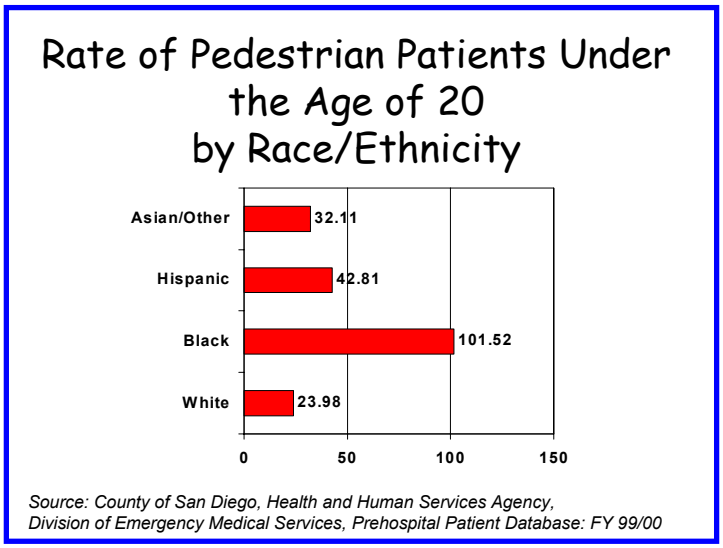
Paramedics/EMTs responded to 377 patients under the age of 20 who had been injured as pedestrians. Males made up 57% of these.



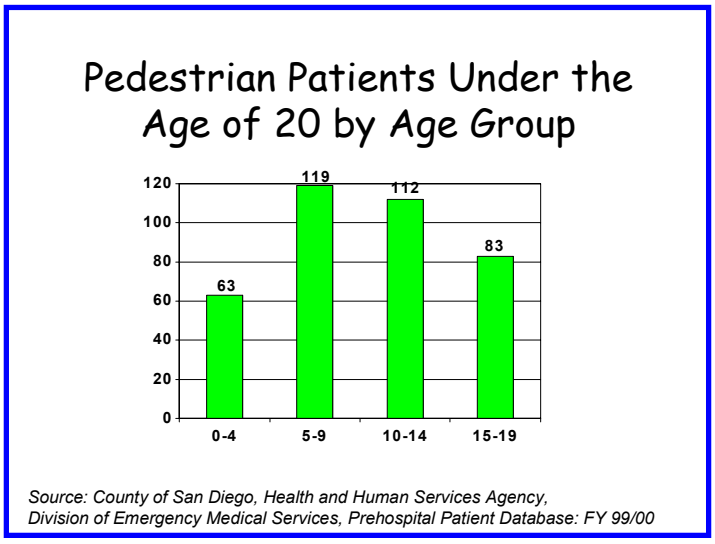
White children made up a much smaller percentage of pedestrian injuries than they did for other causes. Hispanics actually had the highest percentage of pedestrian injuries, with 34%, Whites made up 26%, Blacks 17%, and Asian/Others 7%. Race/Ethnicity was unknown for 16% of patients.

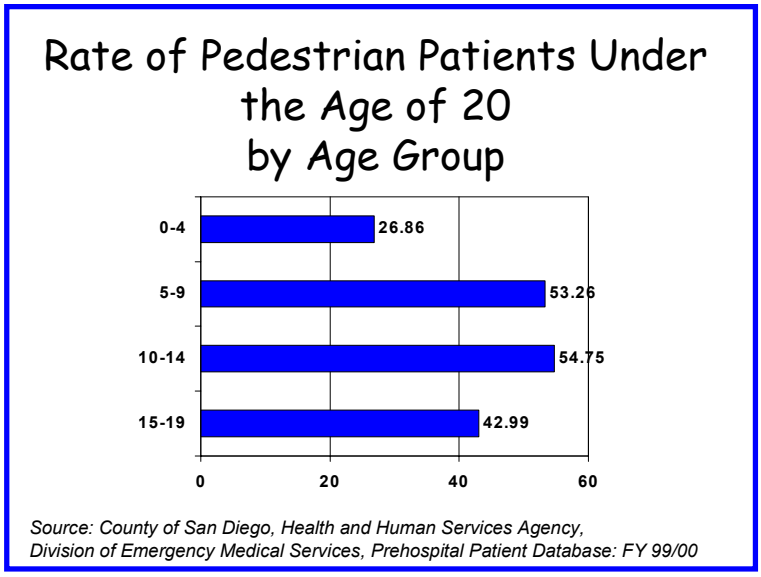


Black children had the highest risk of pedestrian injury (102/100,000), with a rate more than twice that for Hispanics (43/100,000), three times higher than Asian/Others (32/100,000), and four times the rate for Whites (24/100,000). This may be because of the large Black concentration in urban areas where people have to walk along very busy streets.

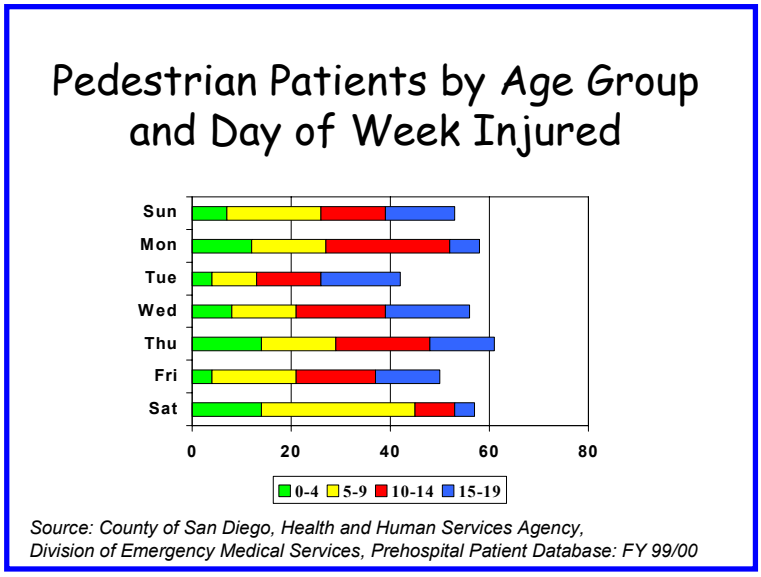


Youngsters from 5-14 years of age are at the highest risk of pedestrian injury. This is partially true because the youngest children in this group are harder for drivers to see, and also because they tend to be less likely than older children are to pay attention to the hazards around themselves.



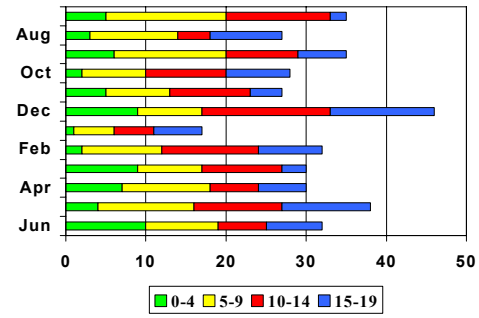


More pedestrian injuries happened on Thursday than on any other day of the week, but there was no clear pattern for any age group.



The number of pedestrian injuries peaked during December, and again in May. January saw the fewest pedestrian injuries of any month.

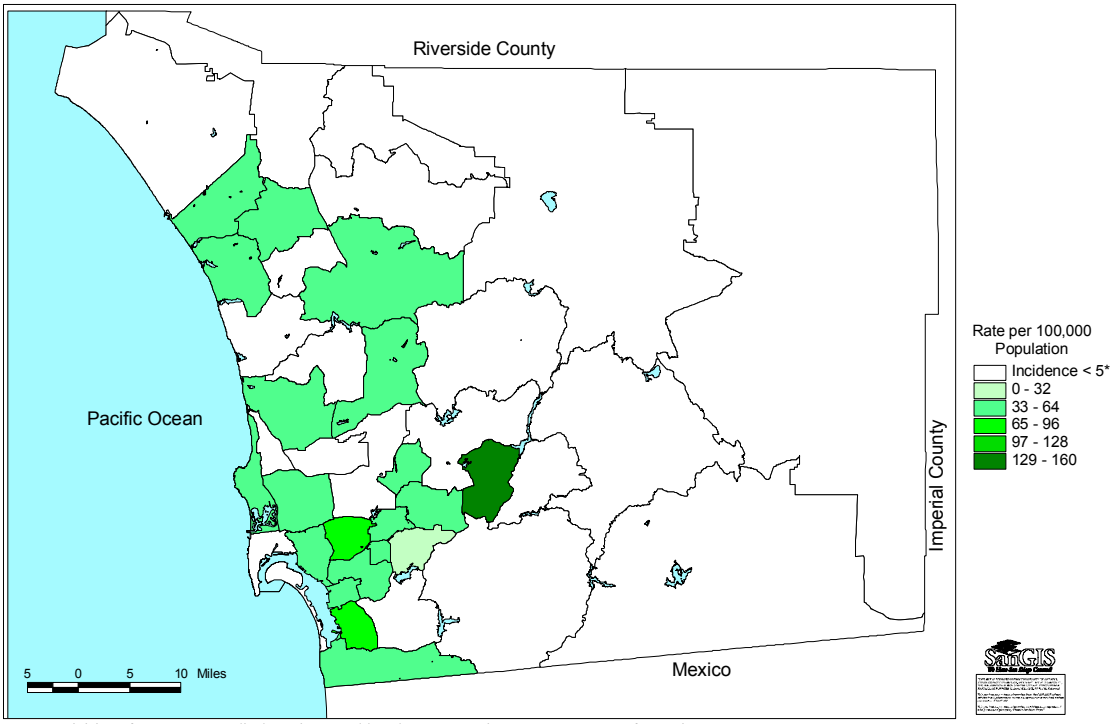
Pedestrian Patients by Age Group and Month of Injury



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

Harbison Crest, Mid-City and Chula Vista SRAs experienced the highest pedestrian crash rates of 157, 87 and 70/100,000, respectively. With the exception of Harbison Crest, these areas are primarily urban with a high level of traffic congestion, especially as people are going to and from work.

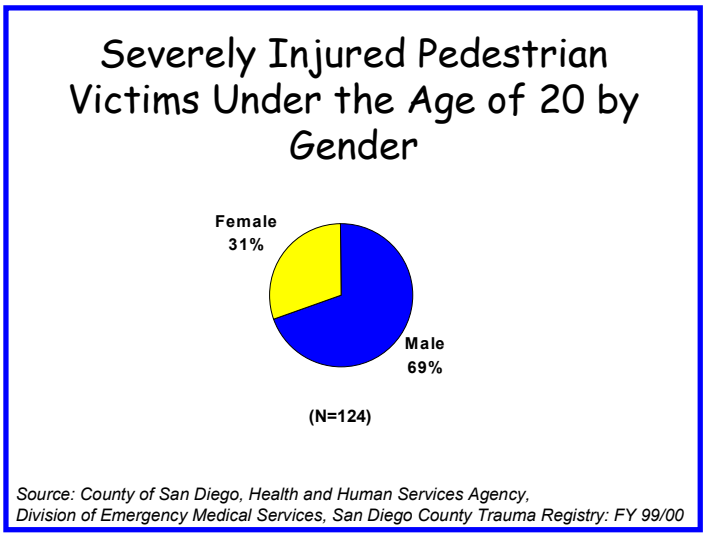
Paramedic/EMT Pedestrian Crash Patients
Under the Age of 20 by Subregional Area



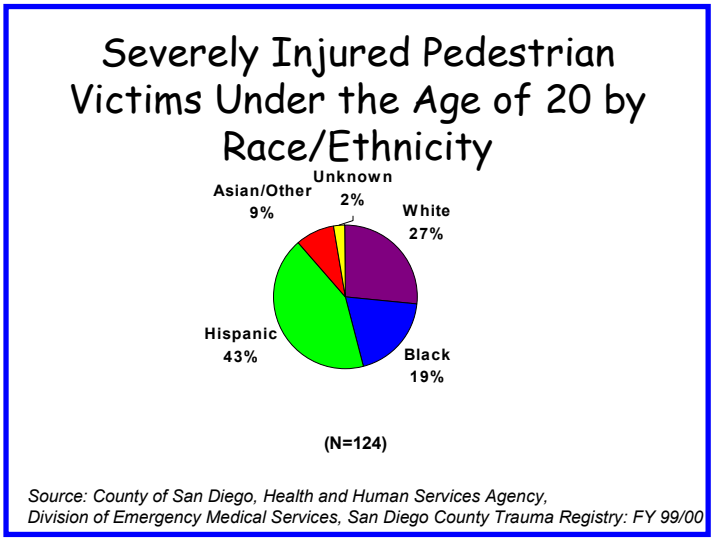
Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Prehospital Database, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.
*Rates not calculated on incidents less than 5.
Note: there were 12 cases with an unspecified SRA.

Trauma Registry Patients

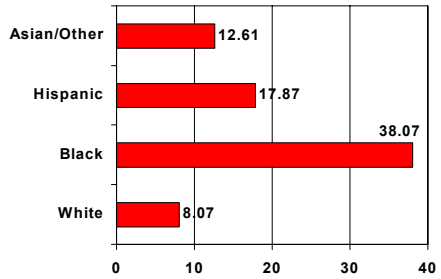
There were a total of 124 in pedestrian injuries that met the criteria for inclusion in the Trauma Registry. Of these patients, 69% were male.



Hispanics comprised the highest (43%) percentage of the severe pedestrian injuries followed by Whites (27%), Blacks (19%), and Asians/Others (9%). Blacks and Hispanics were at the greatest risk of severe injury from pedestrian crashes, with 38 and 18 severe injuries per 100,000 population, respectively. The order of these rates corresponds to the rates seen in injuries resulting in a paramedic/EMT-1 response.

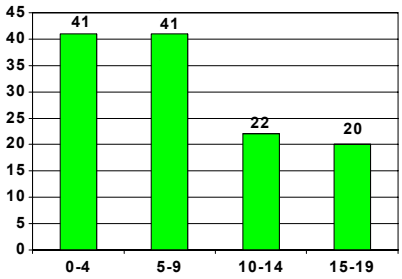


Rate of Severely Injured Pedestrian Victims Under the Age of 20 by Race/Ethnicity



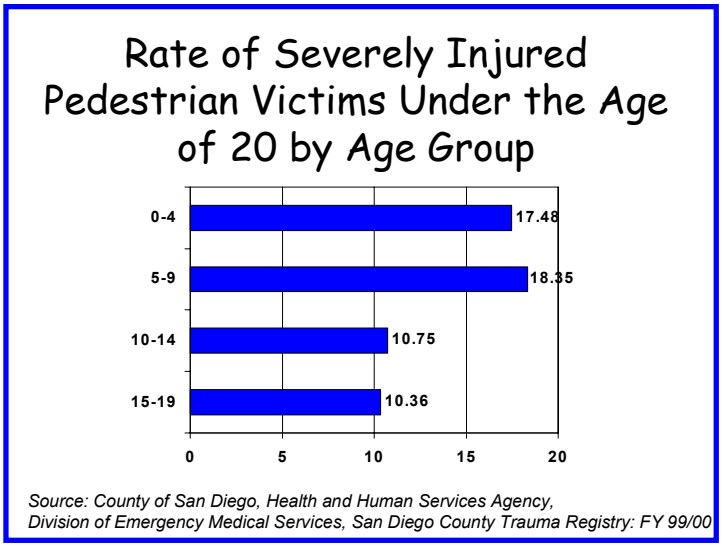
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

Severely Injured Pedestrian Victims Under the Age of 20 by Age Group

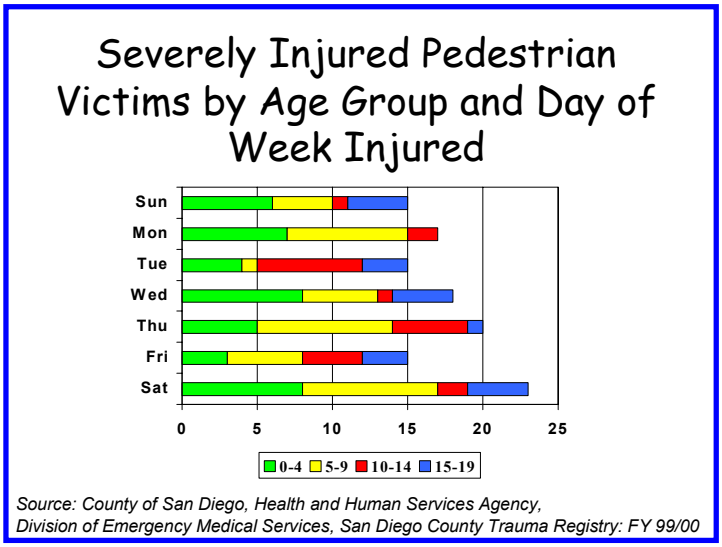


Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

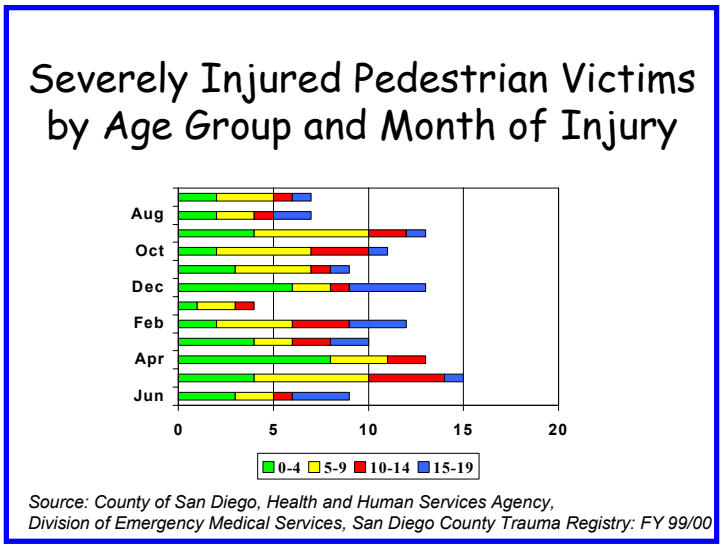
The number of severe outcomes and rates were similar in the 0-4 and 5-9 age groups, which were much higher than the 10-14 and 15-19 age groups.



There was no clear pattern to severe pedestrian injuries according to day of week.

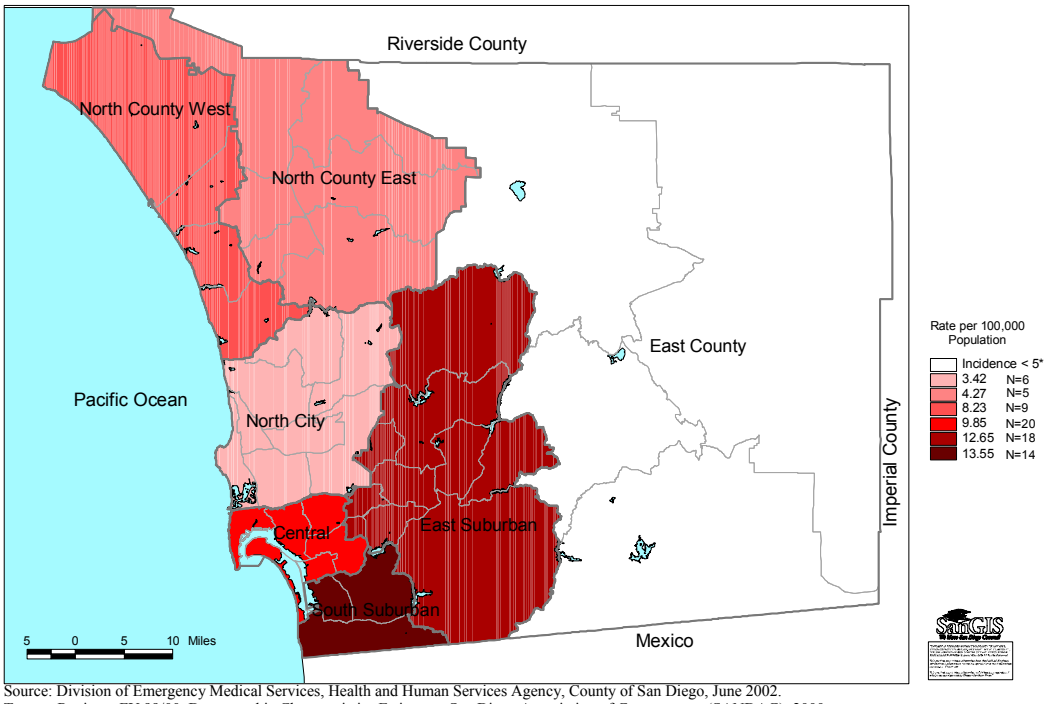


While May had the highest number of severe pedestrian injuries, the number fluctuated widely throughout the year.



The East Suburban and South Suburban MSAs had the highest rate of severe pedestrian injury in the county (14 and 13/100,000 respectively).

Severe Injury Due to Pedestrian Crash
Under the Age of 20 by Major Statistical Area



Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Trauma Registry, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.
*Rates not calculated on incidents less than 5.
Note: there were 48 cases with an unspecified SRA.

San Diego Safe Kids Coalition Prevention Activities

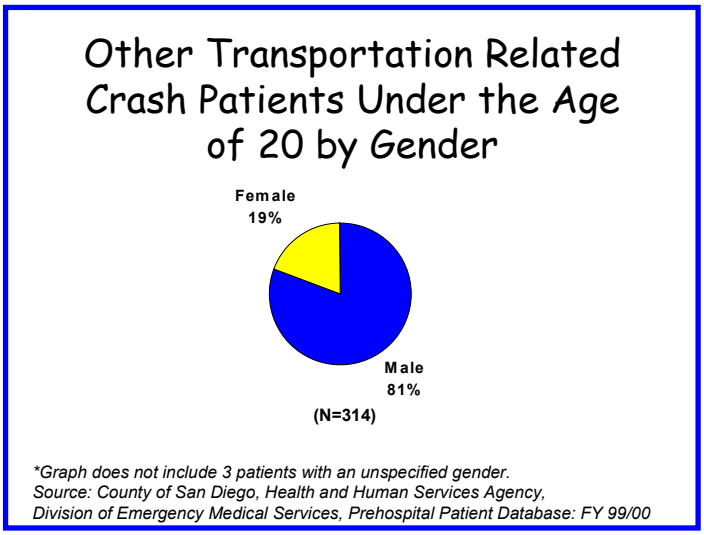
The Safe Kids Coalition participated in the Safe Routes to School Coalition that was established in the Mid-City area of San Diego. The focus of the group was to study pedestrian behavior, identify any high risk areas and make recommendations to the City of San Diego to increase pedestrian safety in the areas of Euclid and Central Elementary Schools. This work has been completed and several of the recommendations are being implemented by the Traffic Engineering Department of the City of San Diego. A City wide pedestrian task force has been convened to help increase pedestrian safety in all areas. Aspects of the program are currently being organized in Southeastern San Diego to address high pedestrian risk areas in that community.

As part of this work, Safe Kids conducted Walk A Child to School Day activities at these schools as well as others in the County. San Diego had been selected by National Safe Kids to serve as a pilot location for this program. FedEx Corporation is a national partner and on the local level provides volunteers, resources, and assist in event coordination.

Prevention Activities You Can Do

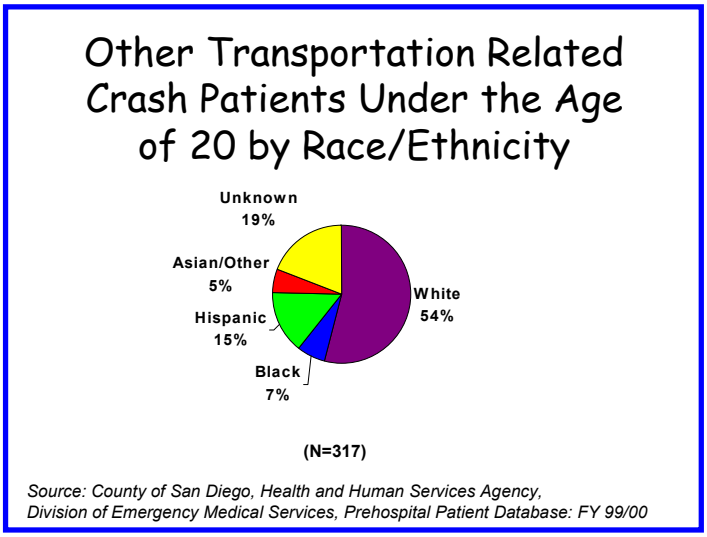
- Never allow children under the age of 10 to walk in traffic unaccompanied by an adult. Children lack the ability to adequately assess the dangers posed by motor vehicle traffic. Teaching your child to look both ways before they cross is not enough to keep them safe.
- Walk with your child. Children need you to model safe pedestrian behavior and to determine if the route they are taking is a safe one.
- Make sure your child knows and follows the rules of the road. Local research has shown that children are most likely injured "not crossing in the crosswalk".
- As a driver, always be aware of the potential danger of pedestrians and travel at safe speeds, allowing sufficient time to stop safely, if necessary.
- Anticipate children playing in residential areas and around schools.
- Teach your child to make eye contact with an oncoming driver before they enter the road even if they have the right of way. Drivers do not normally look for pedestrians.

Other Transportation Related Crashes

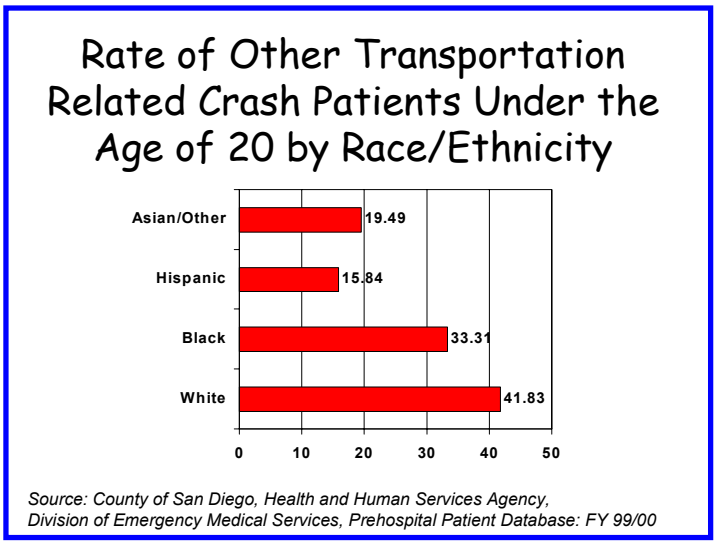


Paramedic/EMT-1 Patients

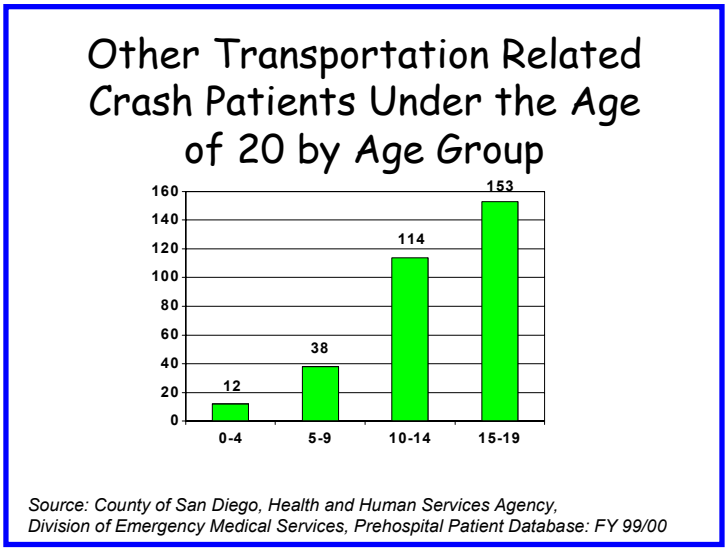
This section includes crashes occurring as a result of other means of travel which may not have fit in any of the other section of this report, or where the number of injuries was too small to warrant discussing each cause individually. This includes motorcycles, non-motorized transport (such as horse-drawn carriages), railway/trolley, and other vehicles. Out of the 317 patients injured while using "other transportation," the majority (81%) were male. Whites made up the majority (54%) of patients, and also had the highest risk of injury while



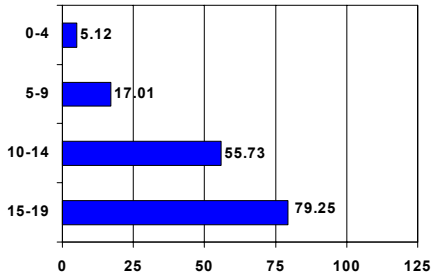
using other transportation. White children were more than twice as likely as children from other racial/ethnic backgrounds to be injured in this manner.



The number of injuries from other transportation increased dramatically in the 10-14 and 15-19 year age groups in comparison with children younger than ten years. The risk of injury followed the same pattern, with children younger than ten years experiencing injury rates of less than 20/100,000, while 10-14 year olds increased to 56/100,000 and 15-19 year olds had a rate of 79/100,000.

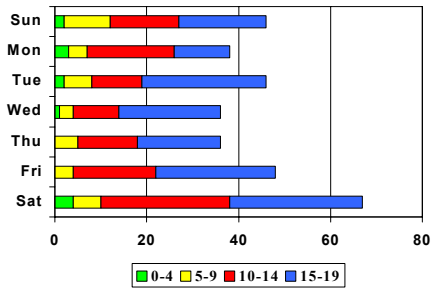


Rate of Other Transportation Related Crash Patients Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

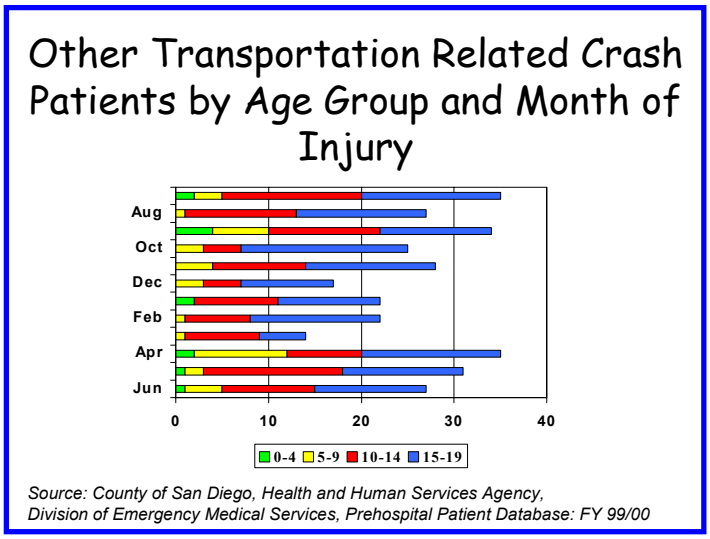
Other Transportation Related Crash Patients by Age Group and Day of Week Injured



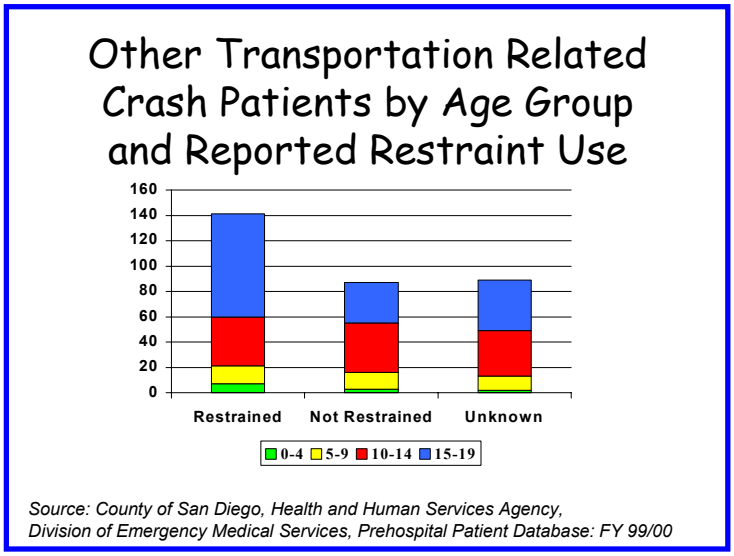
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

As most of these modes of transportation are associated with leisure time activities, it is not surprising that 36% of these injuries occurred on Saturdays and Sundays.

These injuries occurred more frequently in the warmer months, which coincides with these types of activities. April and July had the highest number of incidents, with 35 each.

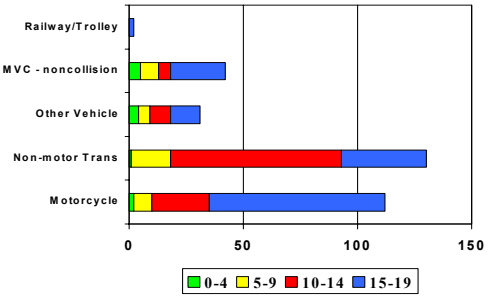


Not all of these alternative transportation modes come equipped with safety restraints, but it is interesting to note that only 141 (62%) of those patients with restraint use/no use known were restrained in some way at the time of their mishap.



As we might suspect in a temperate climate such as San Diego, non-motorized transportation and motorcycles were responsible for a combined 76% of these crashes.

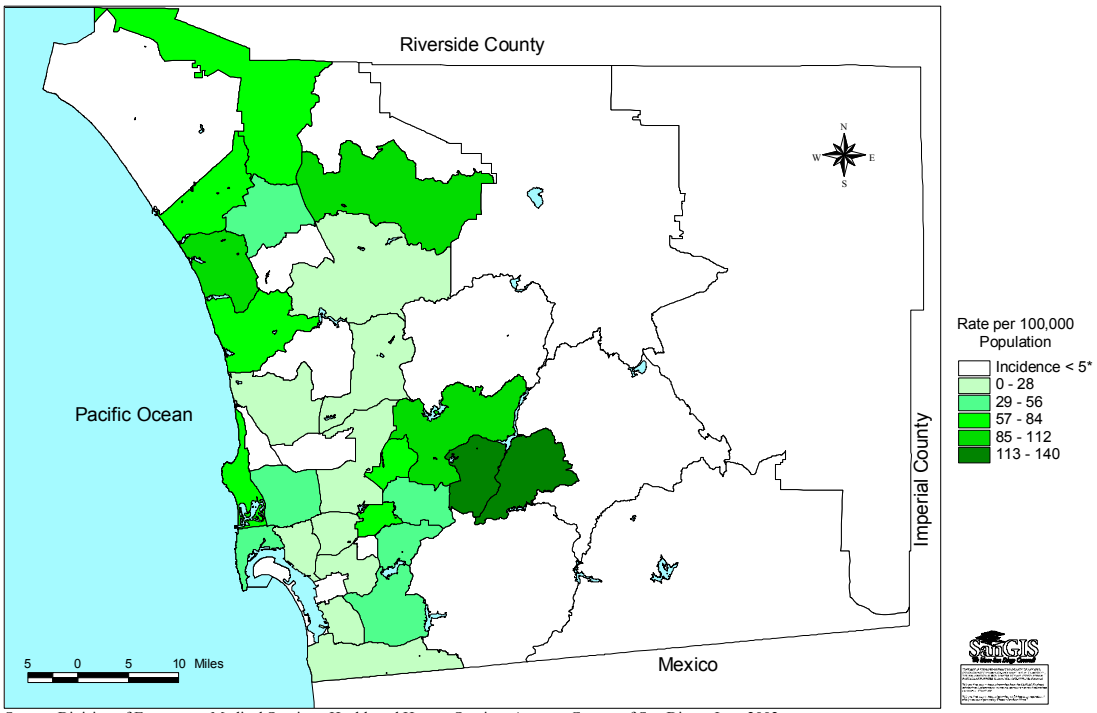
Other Transportation Related Crash Patients by Age Group and Mechanism of Injury



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

The Alpine (139/100,000) and Harbison Crest (131/100,000) SRAs had the highest rates of paramedic/EMT calls due to other transportation related unintentional injuries.

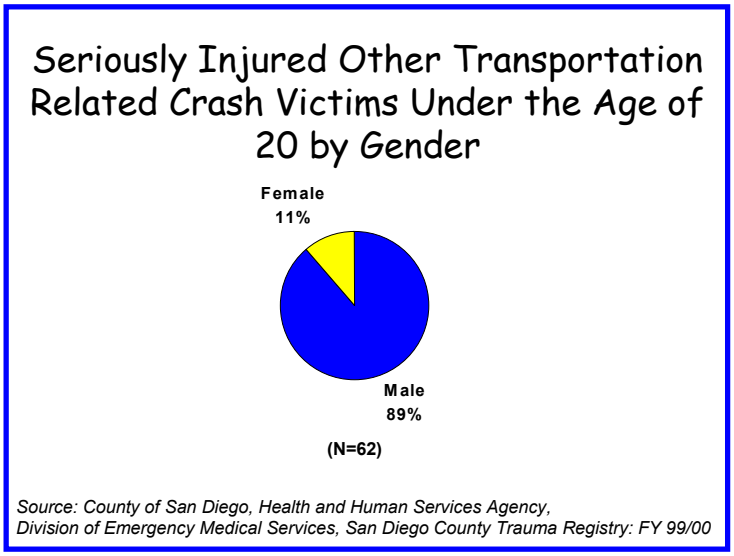
Paramedic/EMT Other Transportation Related Patients Under the Age of 20 by Subregional Area



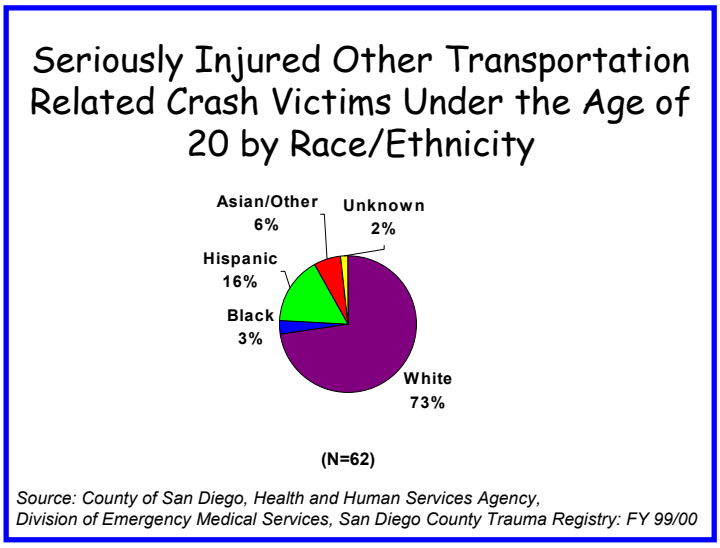
Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Prehospital Database, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.
*Rates not calculated on incidents less than 5.
Note: there were 16 cases with an unspecified SRA.

Trauma Registry Patients

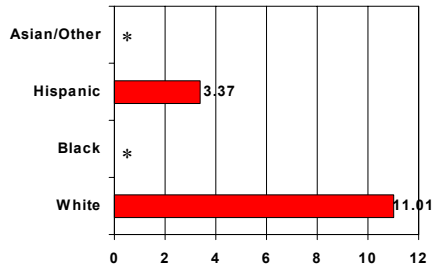
Sixty-two children under 20 years of age were severely injured using other transportation means. The majority of these were male (89%).



Whites made up the predominant race/ethnic group among these serious injuries, with 73%. Hispanics comprised 16%, Asian/Others 6%, and 3% were Black. Whites were over two times more likely to be seriously injured in a crash involving alternative transportation than any other race/ethnicity.



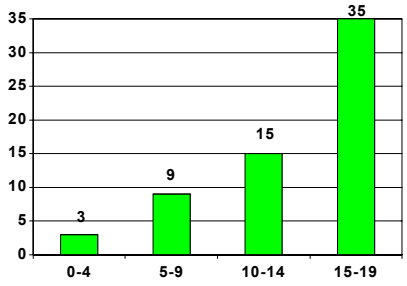
Rate of Seriously Injured Other Transportation Related Crash Victims Under the Age of 20 by Race/Ethnicity



**Rates not calculated on less than five incidents.*
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

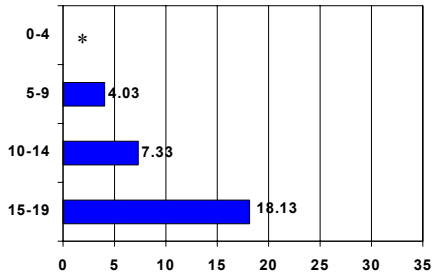
The number and rate of severe injuries in this category increased steadily with increasing age. The rate for 15-19 year olds (18/100,000) was over twice the rate for 10-14 year olds (7/100,000), who in turn were almost twice as likely as 5-9 year olds (4/100,000) to be seriously injured.

Seriously Injured Other Transportation Related Crash Victims Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

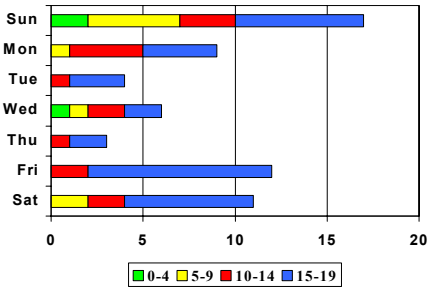
Rate of Seriously Injured Other Transportation Related Crash Victims Under the Age of 20 by Age Group



**Rates not calculated on less than five incidents.*
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

More than half of the severe injuries occurred on Fridays, Saturdays, and Sundays, which were when most of the activities associated with these modes of transportation occurred.

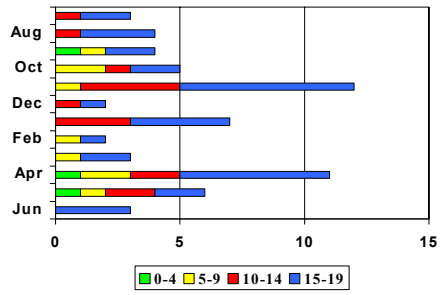
Seriously Injured Other Transportation Related Crash Victims by Age Group and Day of Week Injured



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

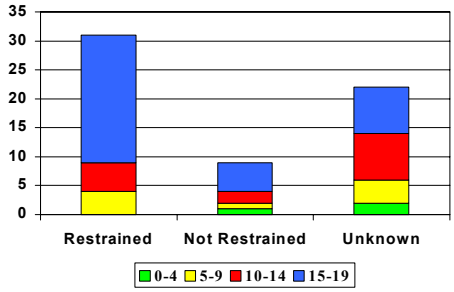
Severe injuries, particularly for the 15-19 year olds, seemed to cluster during the summer and winter months, when children are out of school.

Seriously Injured Other Transportation Related Crash Victims by Age Group and Month of Injury



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

Seriously Injured Other Transportation Related Crash Victims by Age Group and Reported Restraint Use

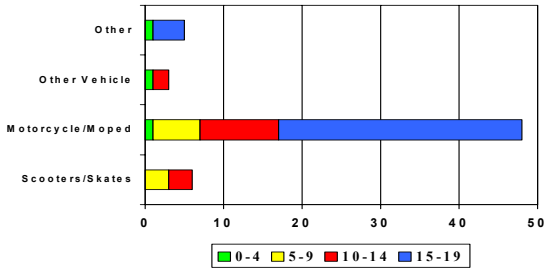


Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

Victims were counted as being restrained if they wore helmets (as in motorcycle and mopeds). Thirty-one (78%) victims wore a helmet or safety restraint when the crash occurred of those with known helmet use/no use.

Patients were injured most often from riding motorcycles or mopeds (77% of severe injuries).

Seriously Injured Other Transportation Related Crash Victims by Age Group and Mechanism of Injury



Note: Scooters/Skates only include those that were traffic related.
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

San Diego Safe Kids Coalition Prevention Activities

The Safe Kids Coalition supported efforts to defeat recent legislation to repeal the mandatory motorcycle helmet law. Once again, the legislation was defeated.

Prevention Activities You Can Do

Motorcycle:

- Passengers and drivers of motorcycles should wear full protective gear including helmets, boots and long sleeve shirts and pants.
- Avoid riding between lanes of slow moving or stopped traffic.
- Avoid access noise by leaving the stock muffler in place or using a muffler of equivalent noise reduction.

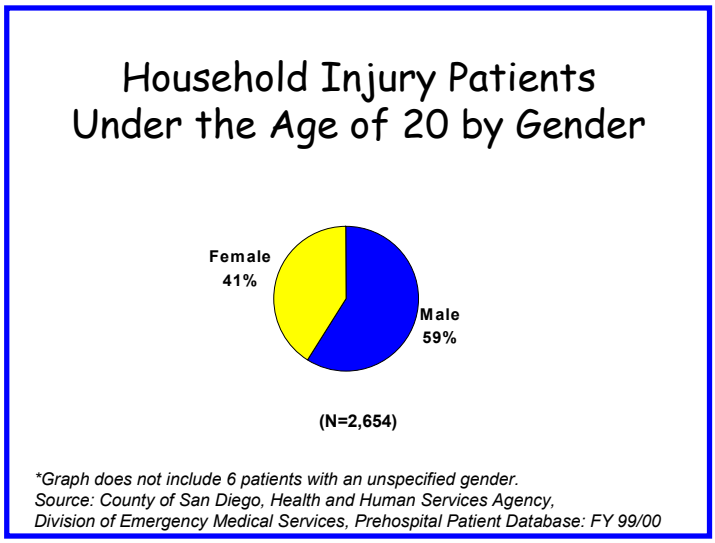
Railroad:

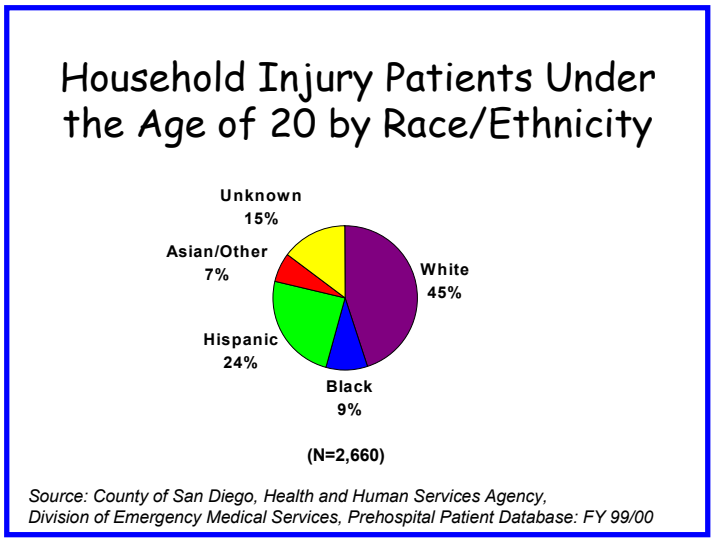
- Never "short-cut" across railroad tracks. Always cross at a public grade crossing, even if it means that you have to walk further out of your way. Once you are sure it is safe, cross quickly and without delay. Watch your step so you do not stumble or fall.
- Stop well away from the tracks if walking or bicycling.

Household Injuries Overall

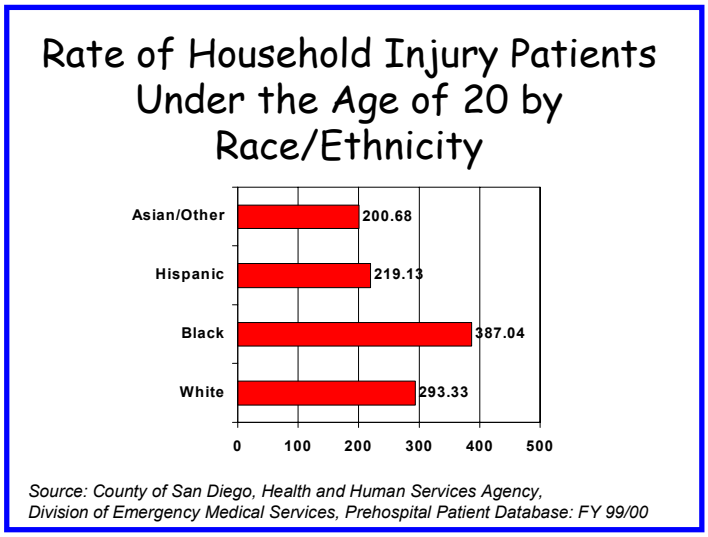
Those injuries which are considered to be household related include burn and scald injuries, suffocations, falls, bites and stings, unintentional poisonings, unintentional firearm injuries and unintentional cutting and piercing injuries. Since each of these injury types have very different injury patterns and prevention opportunities, they are discussed in detail separately.

Overall, there were 2,660 children injured in household related injuries. Over half (59%) were male.

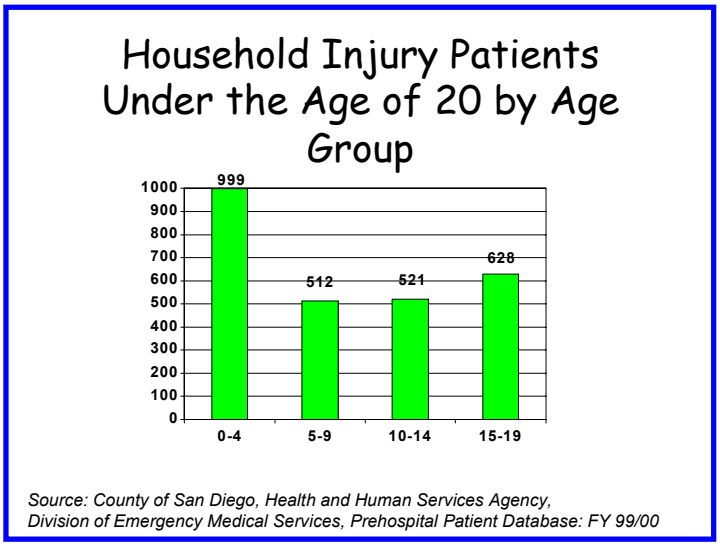




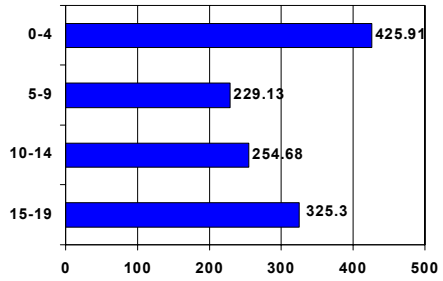
While injuries to Black children accounted for only 9%, the rate of household related injuries among Black children (387/100,000) was almost double that of Asian/Other children (201/100,000), meaning that they were near at twice the risk of being injured as Asian/Other children. White children accounted for the greatest percentage of injuries (45%) and were at next greatest risk with a rate of 293/100,000.



Thirty-eight percent of the children injured were under the age of five. This age group also had the highest rate of injury at 426 injured children for every 100,000 children in that age group. The age group at lowest risk of household related injury was the 5-9 year olds. This group had the lowest number of injuries (N=512) and the lowest rate of injury (229/100,000).

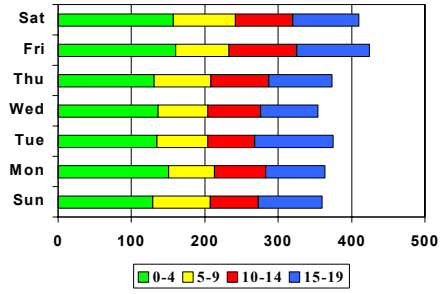


Rate of Household Injury Patients Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

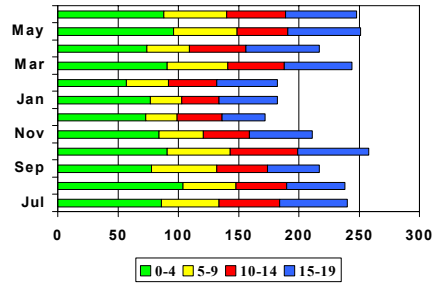
Household Injury Patients by Age Group and Day of Week Injured



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

There was no single day of week that stood out as riskier for any age group, although the fewest household injuries occurred on Wednesdays.

Household Injury Patients by Age Group and Month of Injury



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

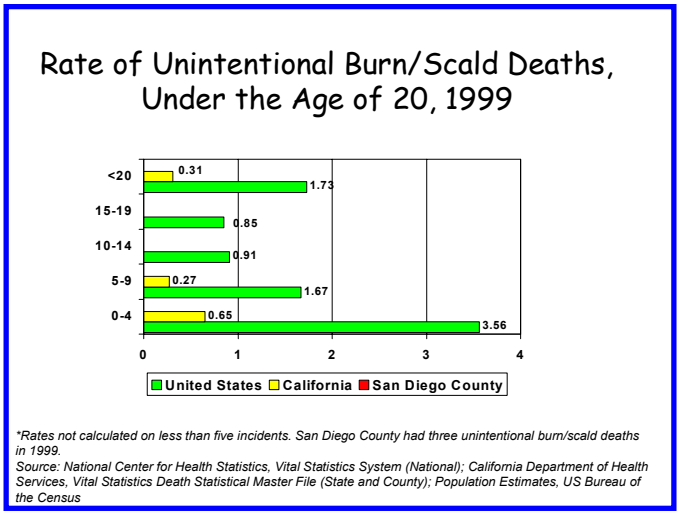
Of any month, the most injuries occurred in October. The incidents in the summer months were higher overall than the winter months for all age groups.

Burn and Scald Injuries

Burn and scald injuries account for relatively few deaths nationally, statewide and in San Diego County. The rate of death from burns and scalds nationally is over five times that of California. Nationally, burns from flames or fire are a more significant injury problem and occur primarily during the winter months. The majority of these burns are due to house fires from unsafe heating systems or the use of inappropriate materials for heat. Additionally, smoking contributes significantly to burn injuries. Burn and scald deaths disproportionately affect younger children. Firefighters are currently seeing increases in fires due to unattended burning candles. The recent popularity of scented candles comes with additional risk.

In California both a more temperate climate and lower prevalence of smoking contribute to the lower rate of burn fatalities. In San Diego County there were too few deaths due to burns and scalds to calculate rates for any age group or for the entire population of children under age twenty. Scald injuries were more prevalent in San Diego County than fire or flame related burns.

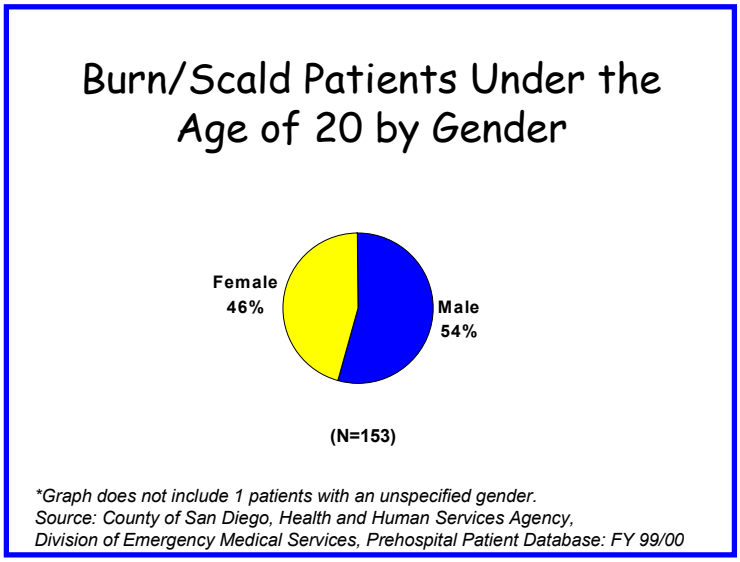
By their very nature, scalds are not usually fatal. The majority of scalds to very young children seen in San Diego County are due to hot liquids and foods not on a cooking surface. In other words, these scalds affect toddlers who grab or reach for the hot item either from the table or counter or from the caretaker's hand. The increase in popularity of hot beverages



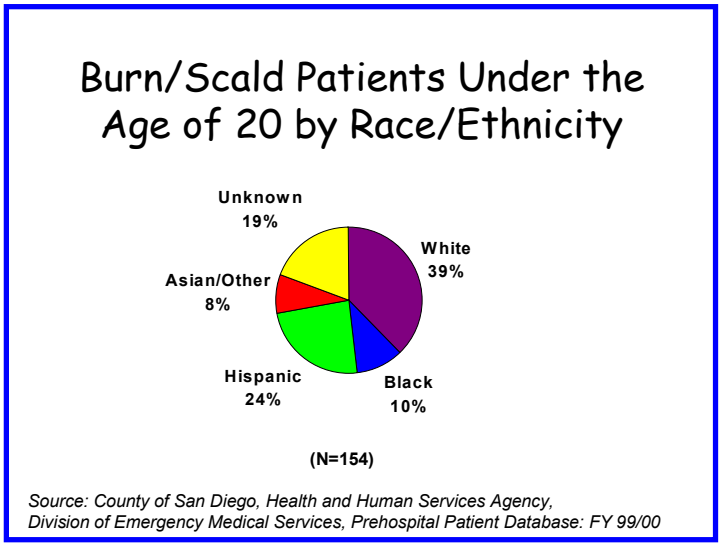
*Rates not calculated on less than five incidents. San Diego County had three unintentional burn/scald deaths in 1999.
Source: National Center for Health Statistics, Vital Statistics System (National); California Department of Health Services, Vital Statistics Death Statistical Master File (State and County); Population Estimates, US Bureau of the Census

such as specialty coffees means that care must be taken to prevent increases in scald injuries to very young children.

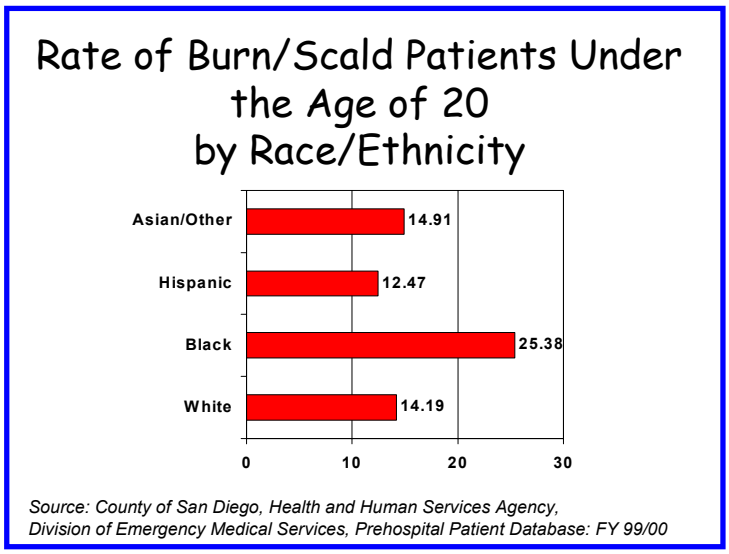
Paramedic/EMT-1 Patients



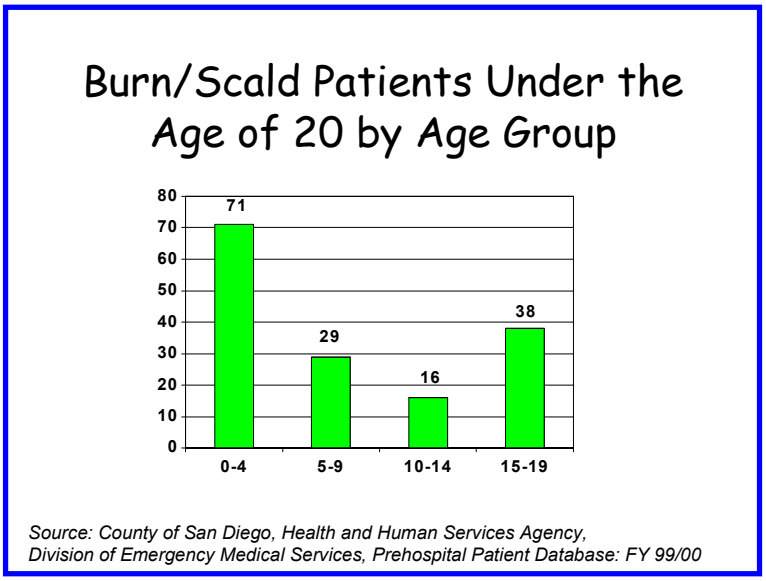
There were a total of 154 burn/scald patients under age twenty seen by Paramedics and EMT-1's. Fifty-four percent of these patients were male.



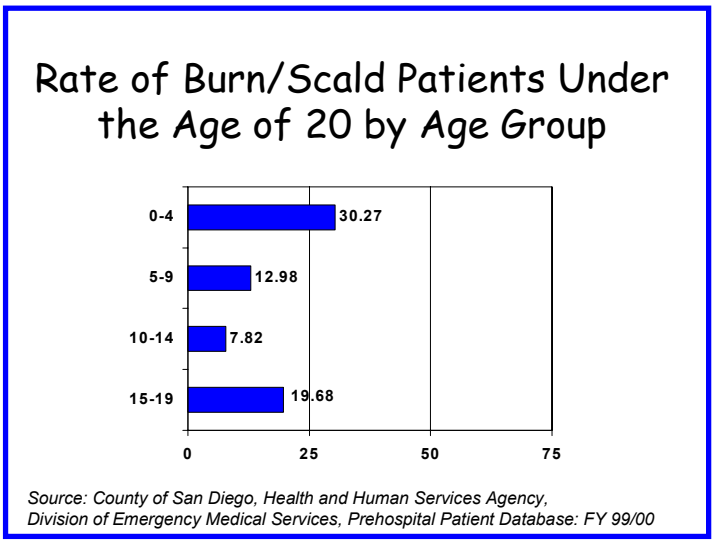
The majority of burn/scald patients were White (39%) or Hispanic (24%). Black (10%) and Asian/Other (8%) children had similar numbers of burn/scald injuries. Race/ethnicity was not identified in 19% of patients.



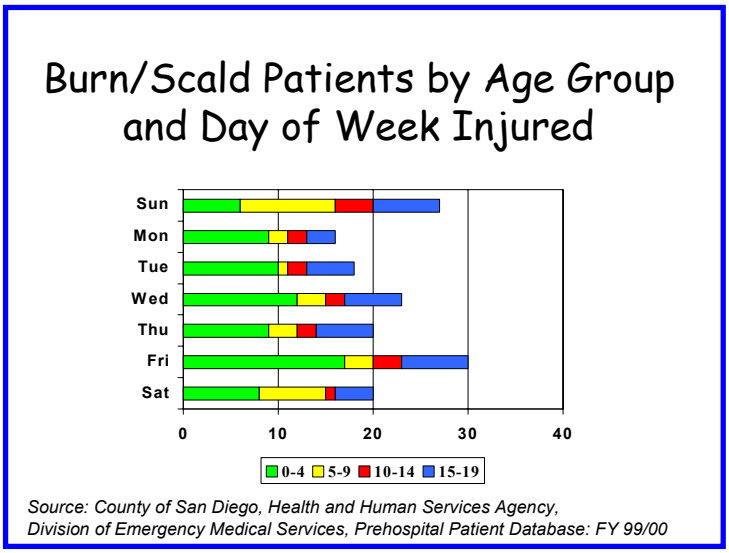
However, Black children had a much higher risk of burn/scald injuries than White or Hispanic children, 25/100,000 compared to 14 and 12/100,000 respectively. Black children were also significantly more likely than Asian/Other (15/100,000) children to suffer burn/scald injuries.



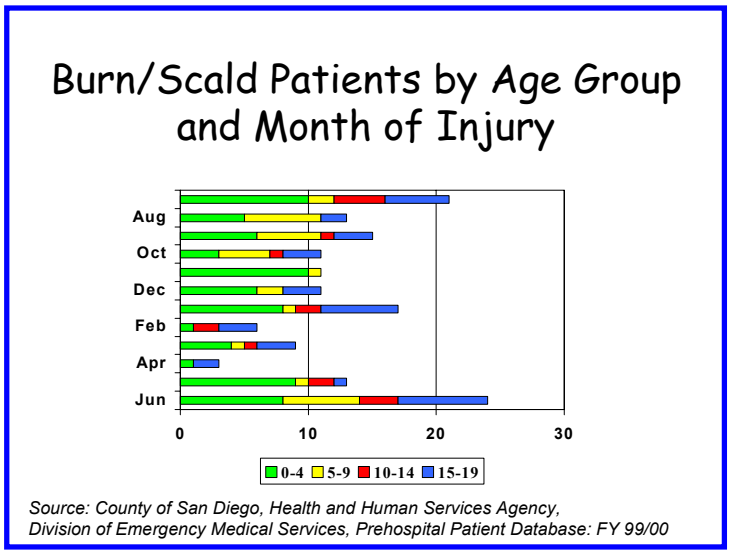
Burn/scald injuries overwhelmingly affected children under age five. Forty-six percent of all burn/scald injuries in children occurred in this youngest age group. As expected, the children under age five also had the highest rate or risk of scald/burn injury at 30/100,000. This was much higher than that of 15-19 year olds who had a rate of 20/100,000. The age group with the lowest risk was the 10-14 year olds with a rate of 8/100,000.



Overall, most scalds/burns occurred on Friday and Sunday. By age group, the youngest children were more likely to be injured on Wednesday or Friday. The 5-9 and 10-14 year olds were more likely to be injured on Sunday. Among the 15-19 year olds there were more injuries on Friday and Sunday.



The 5-9 year olds were more likely to be injured in June or August than any other month. The 10-14 year olds were more likely to be injured in July. Among the 15-19 year olds, burn/scald injuries most often occurred in June and January.



Sixty-three percent of all burn/scald patients were injured in private homes and over half (52%) of those were under the age of five. Not surprisingly, a home was the most common setting for burn/scald injuries for all age groups. Only three of the burn/scald patients were transported from industrial locations.

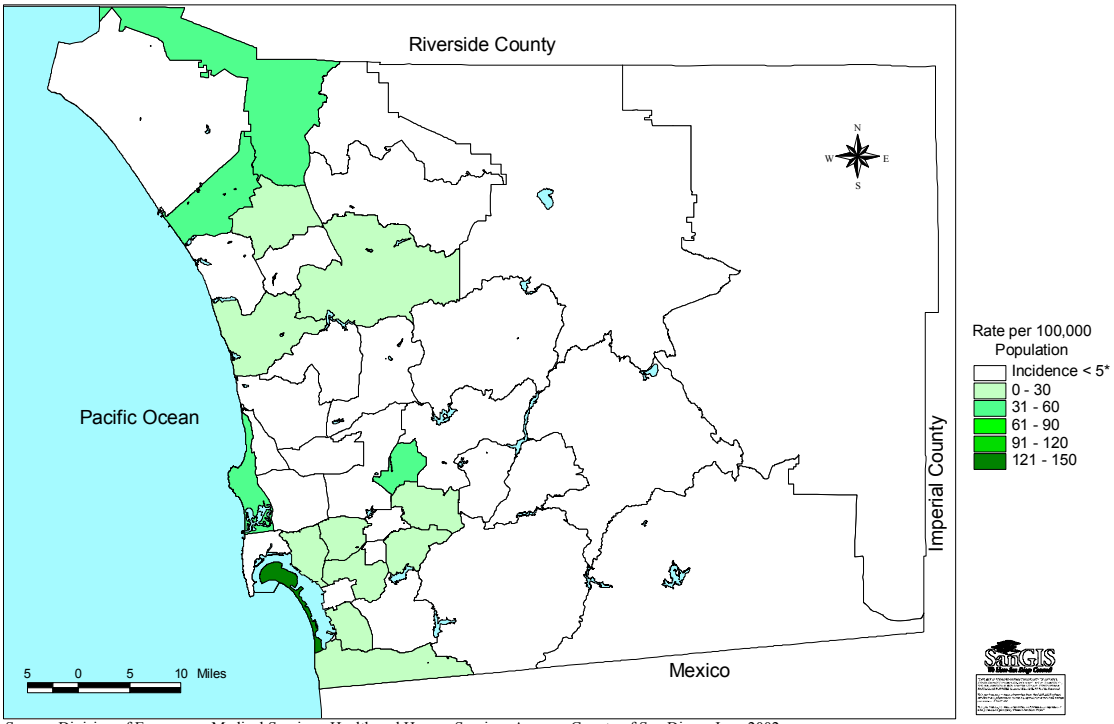
Paramedic/EMT Burn/Scald Patients Under the Age of 20

	0-4	5-9	10-14	15-19	Total
Home	50	18	9	20	97
Street Highway	1	1	2	5	9
Public Bldg	4	1	0	5	10
Industry	1	0	0	2	3
School	0	3	2	0	5
Rec Pblc Area	6	3	1	1	11
Med Facility	2	0	0	2	4
Other	6	2	2	3	13
Missing	1	1	0	0	2
Total	**71**	**29**	**16**	**38**	**154**

Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Data, Fiscal Year 99/00

The rate for paramedic/EMT responses for burn/scald patients in the Coronado SRA (146/100,000) was over three times higher than the next highest, which was the Coastal SRA (46/100,000).

Paramedic/EMT Burn Patients
Under the Age of 20 by Subregional Area



Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Prehospital Database, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.
*Rates not calculated on incidents less than 5.
Note: there were 5 cases with an unspecified SRA.

Local Statistics from the UCSD Burn Center, 2000

The University of California San Diego (UCSD) Regional Burn Center reported 462 admissions to the Burn Center during 2000. Thirty-two percent (148/462) were under 20 years old. Of these, 45.5% were reported as White, 39.4% Hispanic, 12.1% African American, and 3% Asian. Scald injuries accounted for 60.5% and 31.6% of injuries to 0-4 and 5-9 year olds, respectively. Flash/flame accounted for 31.6% and 70% of injuries to 5-9 and 10-14 year olds, respectively. Contact with hot objects accounted for the majority (30.3%) of injuries to 15-19 year olds. For all age groups, home was the most common place in which Burn injuries occurred.

Race by Age Group

	0-4	5-9	10-14	15-19
Asian	11 (12.8%)	2 (10.5)%	0 (0%)	1 (3%)
African American	7 (8.1%)	3 (15.8%)	0 (0%)	4 (12.1%)
Hispanic	44 (51.2%)	7 (36.8%)	5 (50%)	13 (39.4%)
White	24 (27.9%)	7 (36.8%)	5 (50%)	15 (45.5%)
Total	86 (100%)	19 (100%)	10 (100%)	33 (100%)

Source: UCSD Regional Burn Center Statistics for 2000

Mechanism by Age Group

	0-4	5-9	10-14	15-19
Contact	22 (25.6%)	6 (31.6%)	1 (10%)	10 (30.3%)
Electrical	2 (2.3%)	0 (0%)	0 (0%)	0 (0%)
Flash/flame	2 (2.3%)	4 (21.1%)	7 (70%)	9 (27.3%)
Grease/oil	5 (5.8%)	1 (5.3%)	0 (0%)	7 (21.2%)
Inhalation	0 (0%)	1 (5.3%)	0 (0%)	5 (15.2%)
Scald	52 (60.5%)	6 (31.6%)	2 (20%)	2 (6.1%)
Steam	1 (1.2%)	0 (0%)	0 (0%)	0 (0%)
Sunburn	1 (1.2%)	1 (5.3%)	0 (0%)	0 (0%)
Other	1 (1.2%)	0 (0%)	0 (0%)	0 (0%)
Total	86 (100%)	19 (100%)	10 (100%)	33 (100%)

Source: UCSD Regional Burn Center Statistics for 2000

Location by Age Group

	0-4	5-9	10-14	15-19
Home	71 (82.6%)	13 (68.4%)	8 (80%)	16 (48.5%)
Recreation	9 (10.5%)	5 (26.3%)	2 (20%)	5 (15.2%)
Public building	1 (1.2%)	0 (0%)	0 (0%)	1 (3%)
Street	0 (0%)	0 (0%)	0 (0%)	4 (12.1%)
Workplace	0 (0%)	0 (0%)	0 (0%)	4 (12.1%)
Other	5 (5.8%)	1 (5.3%)	0 (0%)	3 (9.1%)
Total	86 (100%)	19 (100%)	10 (100%)	33 (100%)

Source: UCSD Regional Burn Center Statistics for 2000

San Diego Safe Kids Coalition Prevention Activities

In partnership with the Burn Institute, Safe Kids received a $2000.00 grant from National Safe Kids to provide fire and burn safety education primarily to preschoolers in the county. This program utilizes Burni the Dragon to stress important prevention messages to children. As a direct result of receiving this funding, this program was provided to over 20,000 preschool students in San Diego County.

Prevention Activities You Can Do

Flame Related Prevention

- Install a smoke detector on each level of your home, especially outside bedrooms.
- Replace the batteries in the smoke detector twice a year unless using a long life battery. A good time to replace the battery is when you change your clocks.
- Test your smoke detector each month. Waiting until you hear the warning is not the best prevention strategy. It could sound while you are away.
- Keep a current fire extinguisher in your kitchen, garage and any other area where a fire hazard may exist.
- Keep all lighters and matches up and out of the reach of children. This includes utility lighters that are commonly used to light barbecues and fireplaces.
- Never leave a candle burning unattended.

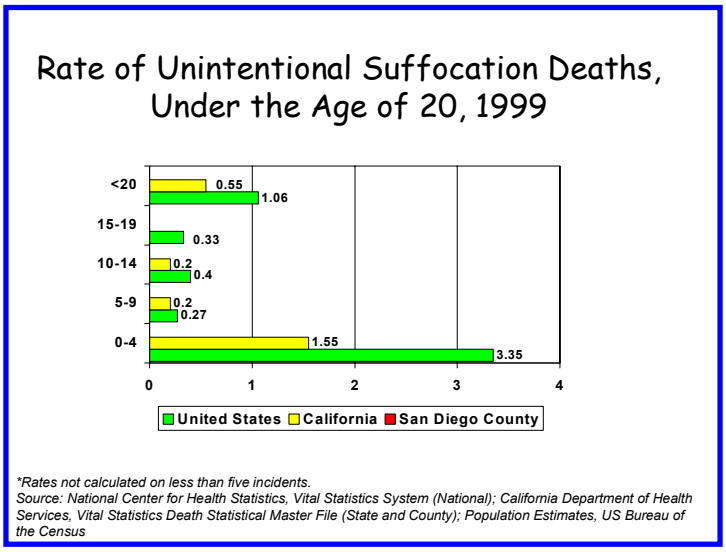
Scald Related Prevention

- ♥ Reduce the temperature on your hot water heater to 120.
- ♥ Teach your children to always turn the cold water on first and be sure to model that behavior.
- ♥ Keep pot handles turned toward the back of the stove and cook on rear burners when possible.
- ♥ Remove tablecloths when toddlers are present in the home. They can easily tug and pull hot liquids down on them.
- ♥ Test all heated liquids before giving it to a child, putting it within reach, or placing them in it to bathe.

Suffocation/Airway Obstruction

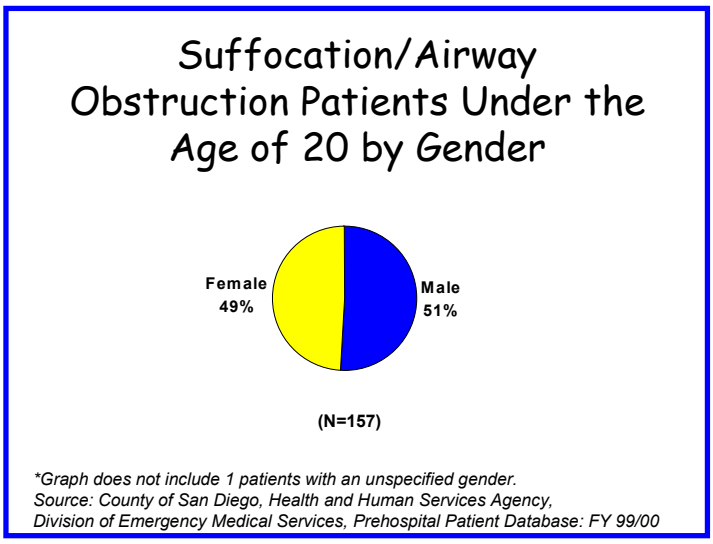
For this report suffocation included unintentional choking, aspiration and asphyxiation. Food items such as hot dogs can get lodged in a child's throat and result in suffocation. The Consumer Products Safety Commission tests items intended for children for choking hazards. Toys are labeled with age appropriate warnings to identify potential hazards. However, items such as balloons, plastic bags, coins and window blinds can also pose suffocation hazards for small children.

The rate of suffocation death is highest among 0-4 year olds. In California, the rates of suffocation deaths among all age groups were slightly lower than the national rates. In San Diego, there were too few suffocation deaths to calculate rates for age specific group including all children under 20 years of age.

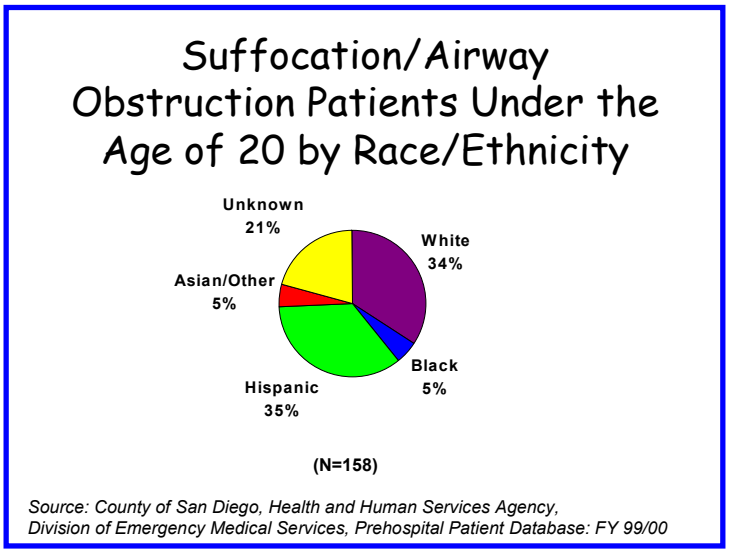


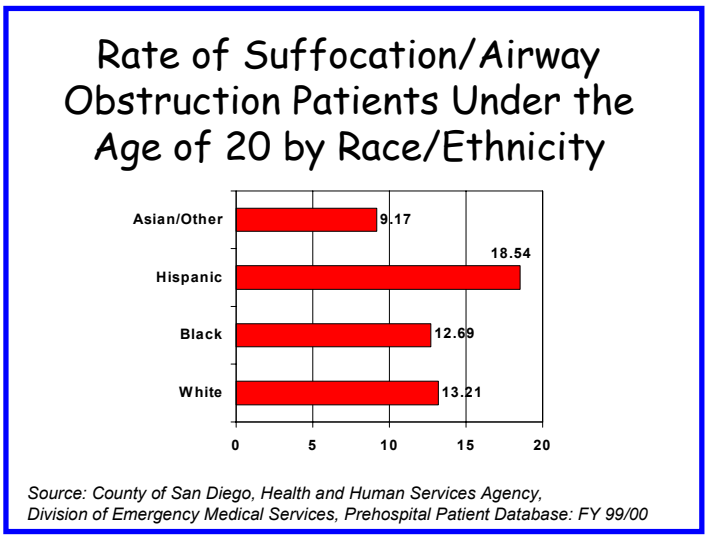
Paramedic/EMT-1 Patients

There were 158 children under the age of 20 seen by paramedics/EMT-1s in San Diego. The majority (51%) were males.

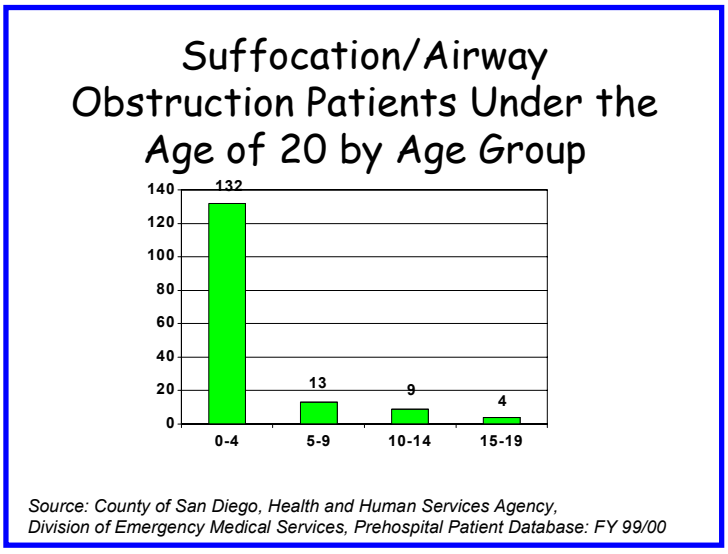


The majority of suffocation patients were Hispanic (35%) or White (34%). Black and Asian/Other children accounted for 5% each. Race/ethnicity was unknown in 21% of suffocation or airway obstruction injuries in children.

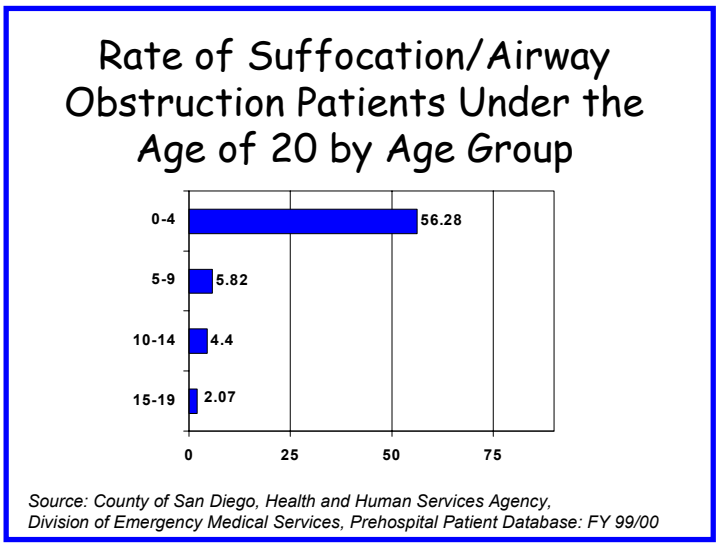




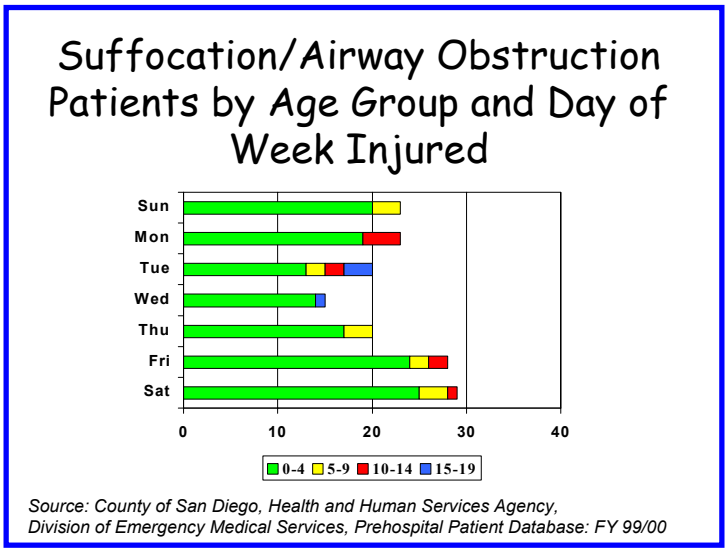
Hispanic children had the greatest risk of suffering suffocation injuries at 19/100,000, double that of Asian/Other children at 9/100,000. Whites and Blacks were slightly less at risk for than Hispanics for suffocation injuries with a rate of 13/100,000.



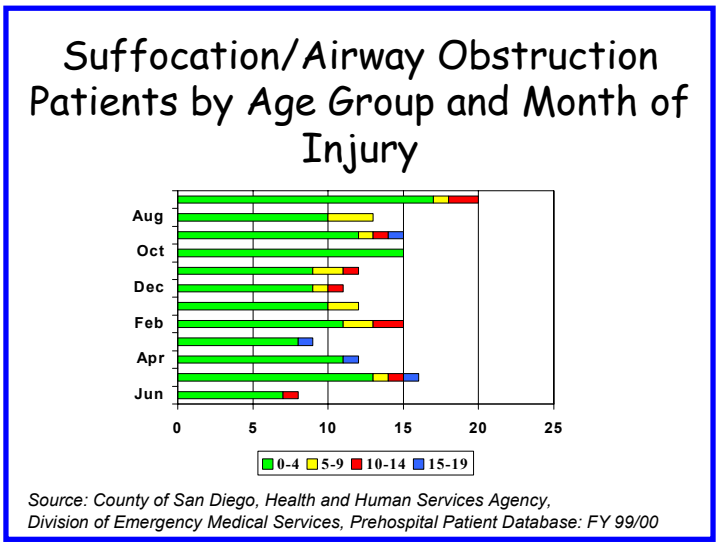
Eighty-four percent of suffocation patients were under age five. This age group also had the highest rate of suffocation injury at 56/100,000. That is over 25 times the rate of 15-19 year olds (2/100,000). Clearly, suffocation injuries affect the youngest age group disproportionately.



Overall, suffocation injuries were more likely to occur on Fridays or Saturdays.



For all age groups, most suffocation injuries occurred during May and July. For 0-4 year olds, July also had a high number of incidents.



The overwhelming majority (78%) of suffocation injuries occurred at home.

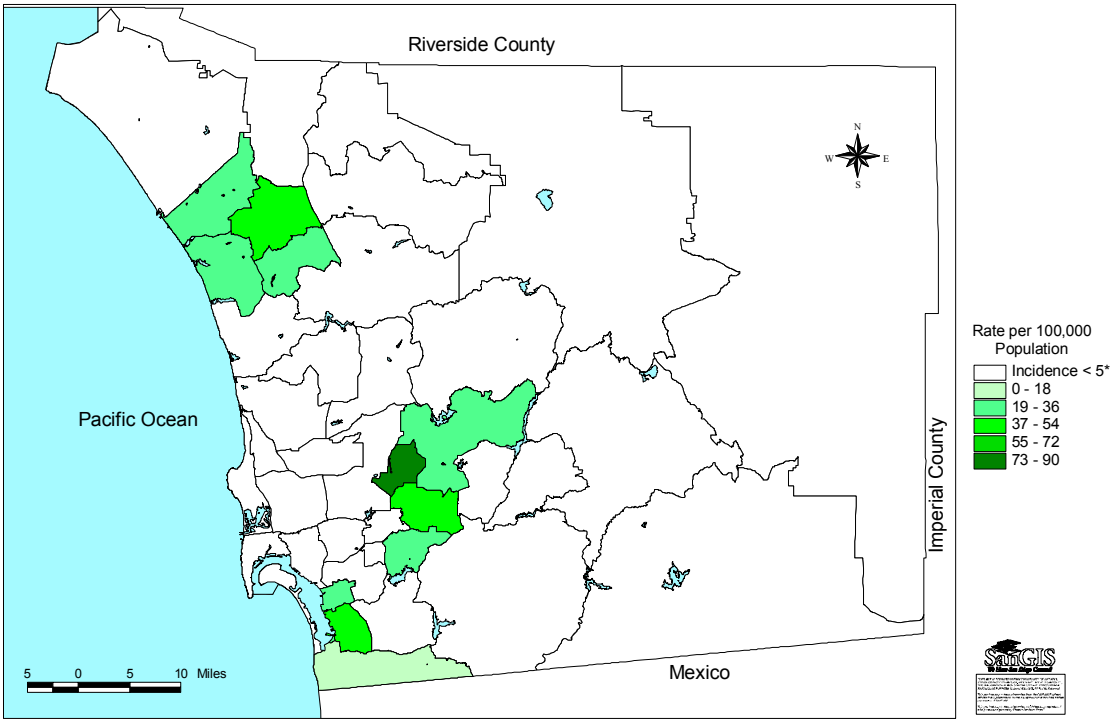
Paramedic/EMT Airway Obstruction/Suffocation Patients Under the Age of 20

	0-4	5-9	10-14	15-19	Total
Home	109	10	3	1	123
Street Highway	4	0	0	0	4
Public Bldg	3	1	4	2	10
School	0	0	0	0	0
Rec Pblc Area	1	0	0	0	1
Med Facility	5	0	1	0	6
Other	6	1	1	1	9
Missing	4	1	0	0	5
Total	**132**	**13**	**9**	**4**	**158**

Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Data, Fiscal Year 99/00

The highest rates of suffocation injuries occurred in the Santee (88/100,000), Vista (49/100,000), and El Cajon (46/100,000) SRAs.

Paramedic/EMT Suffocation/Airway Obstruction Patients
Under the Age of 20 by Subregional Area



Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Prehospital Database, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.
*Rates not calculated on incidents less than 5.
Note: there were 5 cases with an unspecified SRA.

San Diego Safe Kids Coalition Prevention Activities

With funding from Safe Kids Coalition partner, The La Jolla Golden Triangle Rotary Club, over 1,000 small parts test cylinders to test for potential choking hazards were distributed throughout San Diego County at various health fairs and community events. The Coalition distributed over 500 educational brochures on the importance of appropriate toy selection using developmental guidelines as the basis for toy selection.

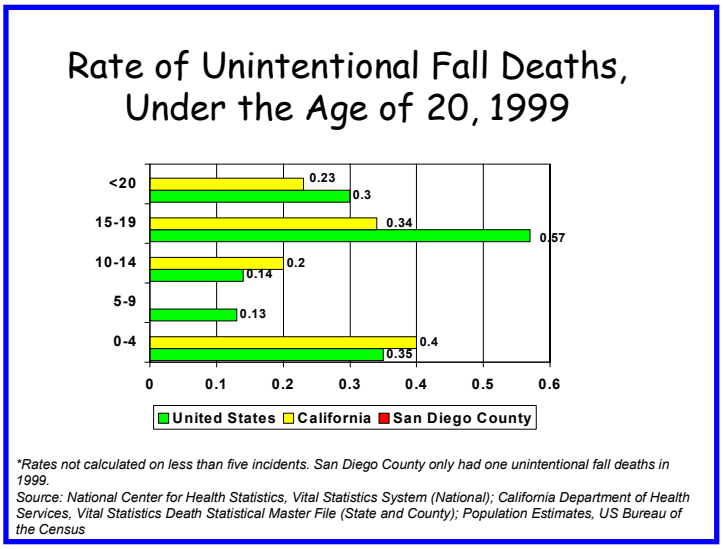
In response to the risk of strangulation in window blind cords for young children, the Safe Kids Coalition distributed over 500 cord shortening kits free of charge to parents in the county. The kit contained the hardware needed for eliminating the hazard for two types of window blinds.

Prevention Activities You Can Do

- Check all toys for potential choking hazards such as loose parts or pieces that can be easily removed.
- Make sure that toys are age appropriate for the child.
- Change all blind cords so that they no longer form a continuous loop.
- When children of different ages are in the same area, monitor the items in the reach of small children. Objects appropriate for an 11 year old are usually not safe for a 2 year old.
- Keep plastic bags and balloons away from young children. Both can become lodged in the airway and cause suffocation.
- Encourage children not to chew on objects such as pen caps and other non-edible products.
- Do not sleep with a young child in your bed. The Consumer Product Safety Administration has issued an alert with this advisement due the increasing number of young children suffocating in adult beds as the result of being crushed by another individual, becoming entangled in the bedding or being wedged between the bed and the wall. Children who are suffocating may not be able to make audible sounds of distress.
- Be sure food is appropriate for the child's age and development. Check with your pediatrician for recommendations on when to introduce specific foods to your child.
- When in doubt, err on the safe side!

Unintentional Falls

Unintentional falls rival motor vehicle occupant crashes as a leading cause of unintentional death and injury among children. Falls accounted for 8% of all injury deaths in the United States, and were the second leading cause of unintentional deaths after motor vehicles in 1999. The nonfatal injury rate was higher than for any other single type of unintentional injury. While older people were more likely to die from a fall, children were more likely to be injured. Researchers have estimated that one in ten children aged 1-3 visited an emergency room for treatment for injuries sustained in a fall. Many of these injuries could have been prevented through the use of safety gates, window guards and door locks.

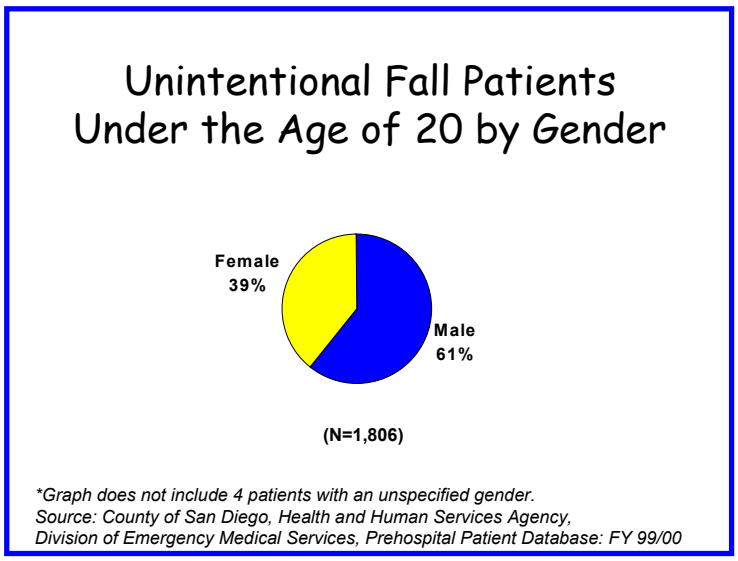


*Rates not calculated on less than five incidents. San Diego County only had one unintentional fall deaths in 1999.
Source: National Center for Health Statistics, Vital Statistics System (National); California Department of Health Services, Vital Statistics Death Statistical Master File (State and County); Population Estimates, US Bureau of the Census

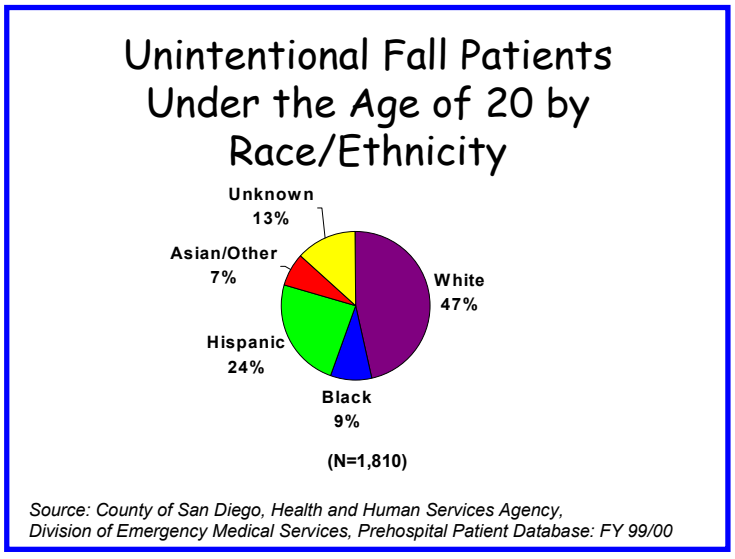
There were not a sufficient number of fall related deaths to children under age 20 in San Diego County to calculate comparison rates. Overall in California, the rate of fall deaths to children under age 20 was slightly below the national rate. However, the rate of fall deaths for 0-4 and 10-14 year olds was higher than the national rate (0.40/100,000 compared to 0.35/100,000 for 0-4 and 0.20/100,000 compared to 0.14/100,000 for 10-14 year olds). By age group in the United States, 15-19 years olds were at greatest risk of fall related death (6.57/100,000).

Paramedic/EMT-1 Patients

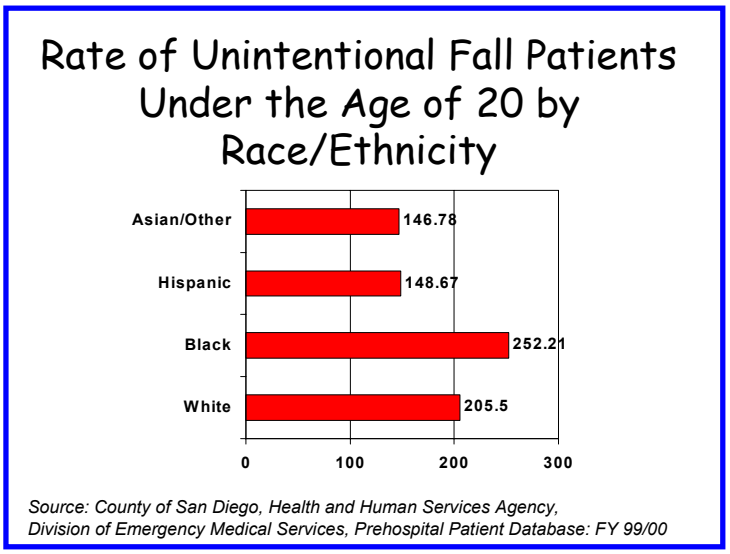
There were a total of 1,810 children under the age of 20 seen by paramedics/EMT-1s in San Diego. The majority (61%) of those seen were male.



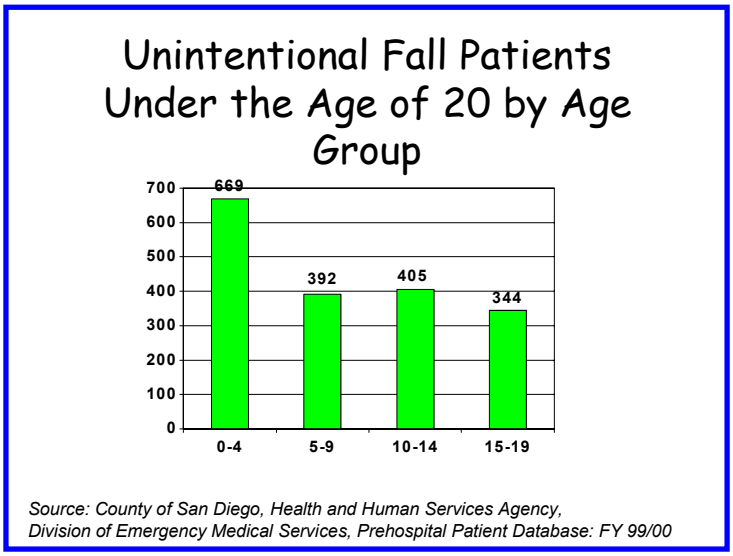
The majority of unintentional fall patients under the age of 20 were White (47%) or Hispanic (24%). Black children accounted for 9% of patients while Asian/Other accounted for 7% of patients. Race/Ethnicity was unknown for 13% of patients.



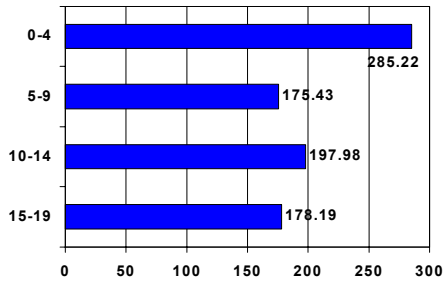
Black children had the greatest risk of suffering an unintentional fall with a rate of 252/100,000. White children had the second highest rate, 206/100,000, followed by Hispanic children at 149/100,000. Asian/Other children had the lowest risk of unintentional falls with a rate of 147/100,000.



Thirty-seven percent of unintentional fall patients were under age five. This group also had the highest rate of unintentional falls at 285/100,000. The rate for this age group is significantly higher than the rate for all other age groups. The second highest rate for unintentional falls occurred in children ages 10-14 at 198/100,000.



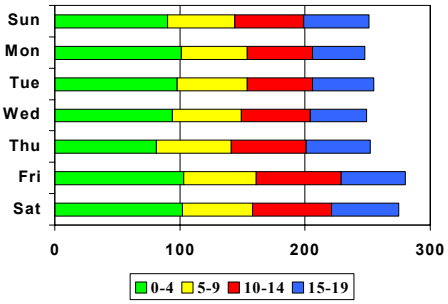
Rate of Unintentional Fall Patients Under the Age of 20 by Age Group



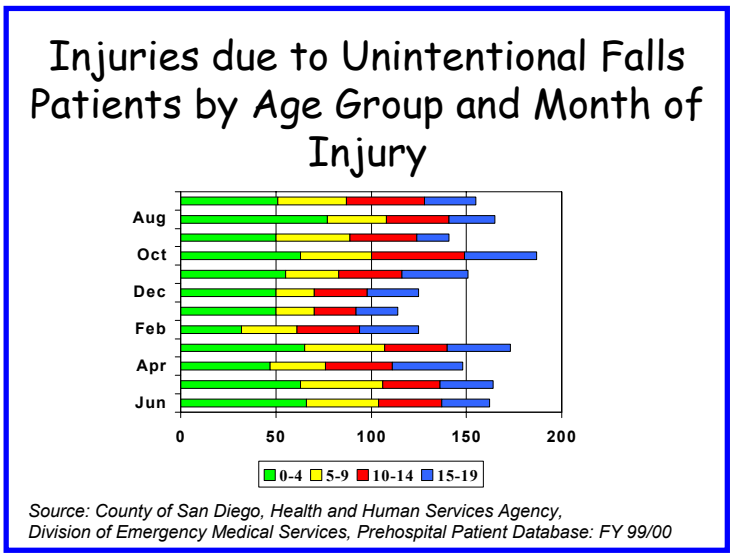
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

As a whole, unintentional falls were more likely to occur on Fridays or Saturdays. Unintentional falls to children under the age of 20 are seasonal in nature. Fall injuries increase in March and continue to be high through October. Falls occurred most frequently in the months of March, August, and October.

Unintentional Fall Patients by Age Group and Day of Week Injured



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00



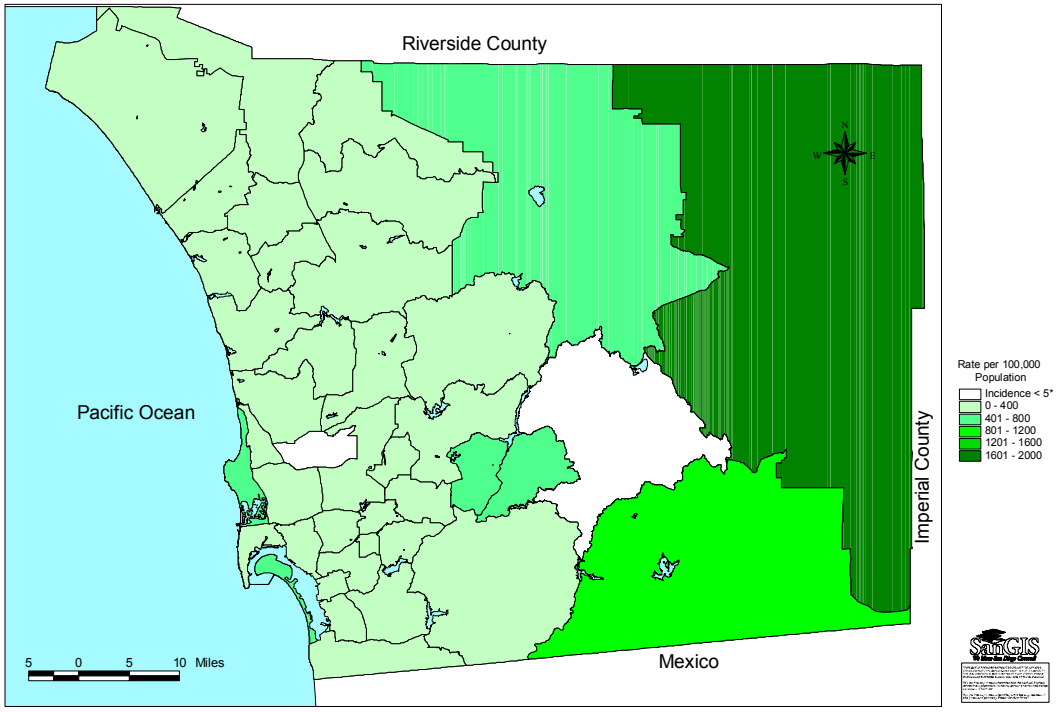
Most unintentional falls for patients under the age of 20 occurred at home (45%). Thirteen percent of unintentional fall injuries occurred at school.

Paramedic/EMT Unintentional Fall Patients Under the Age of 20					
	0-4	**5-9**	**10-14**	**15-19**	**Total**
Home	442	163	110	91	806
Street Highway	34	18	51	51	154
Public Bldg	78	36	37	37	188
Industry	3	0	3	12	18
School	14	71	95	47	227
Rec Pblc Area	24	44	56	49	173
Med Facility	19	20	16	10	65
Other	42	31	32	43	148
Missing	13	9	5	4	31
Total	**669**	**392**	**405**	**344**	**1810**

Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Data, Fiscal Year 99/00

Unintentional falls that require a paramedic/EMT response were dispersed throughout San Diego County, with the highest rates occurring in the East County. The SRA with the highest rate was Anza-Borrego (1983/100,000) followed by Mountain Empire (1034/100,000) and Palomar-Julian (631/100,000). The majority of remaining SRAs had paramedic/EMT response rates lower than 400/100,000.

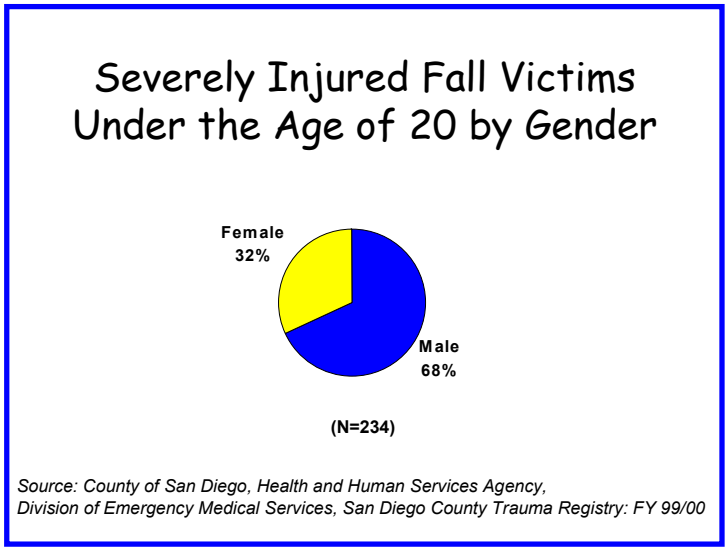
Paramedic/EMT Fall Patients
Under the Age of 20 by Subregional Area



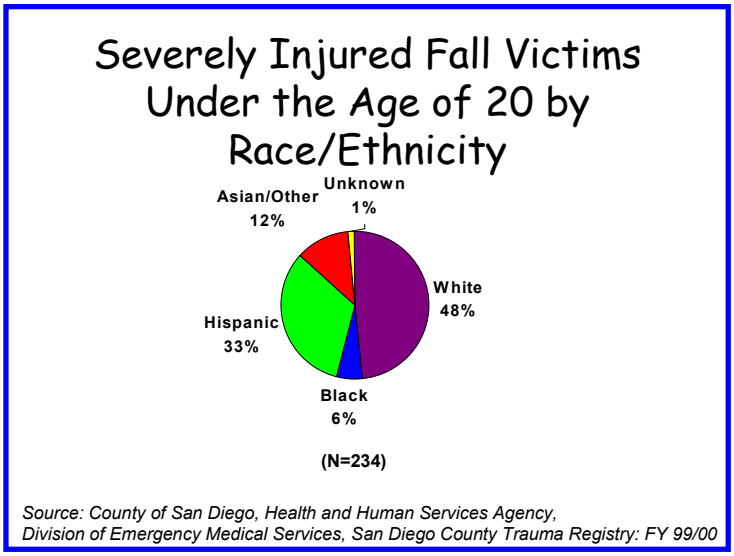
Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Prehospital Database, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.
*Rates not calculated on incidents less than 5.
Note: there were 49 cases with an unspecified SRA.

Trauma Registry Patients

There were 234 severely injured fall victims under the age of 20. Males were the majority (68%).

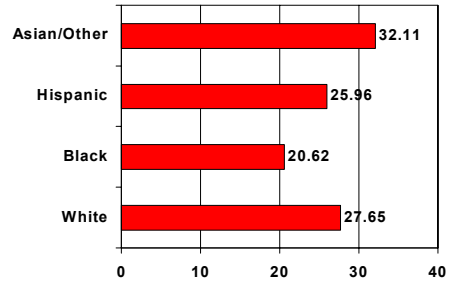


The majority of severely injured fall victims under the age of 20 were White (48%) and Hispanic (33%). Asian/Other children accounted for 12% of severely injured patients followed by Black children (6%).



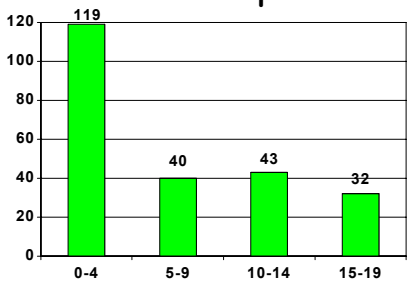
Asian/Other children had the greatest risk of being a severely injured fall victim with a rate of 32/100,000. This risk is higher than the rate of White children at 28/100,000, and Hispanic children at 26/100,000. Black children had the lowest rate at 21/100,000.

Rate of Severely Injured Fall Victims Under the Age of 20 by Race/Ethnicity



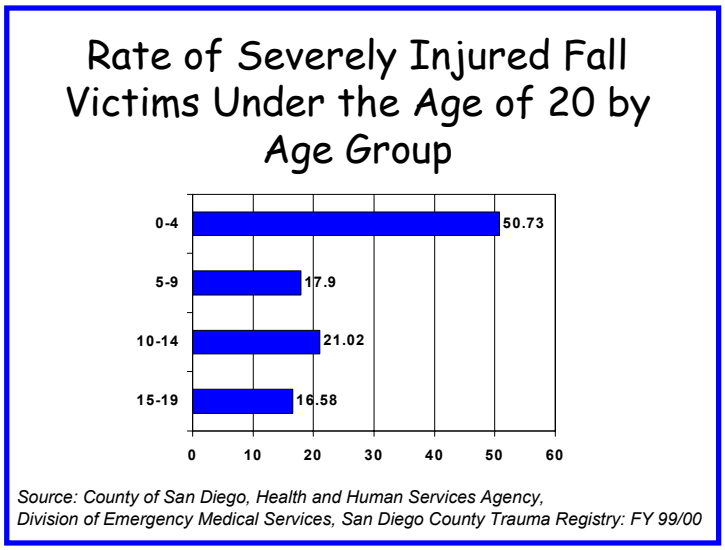
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

Severely Injured Fall Victims Under the Age of 20 by Age Group

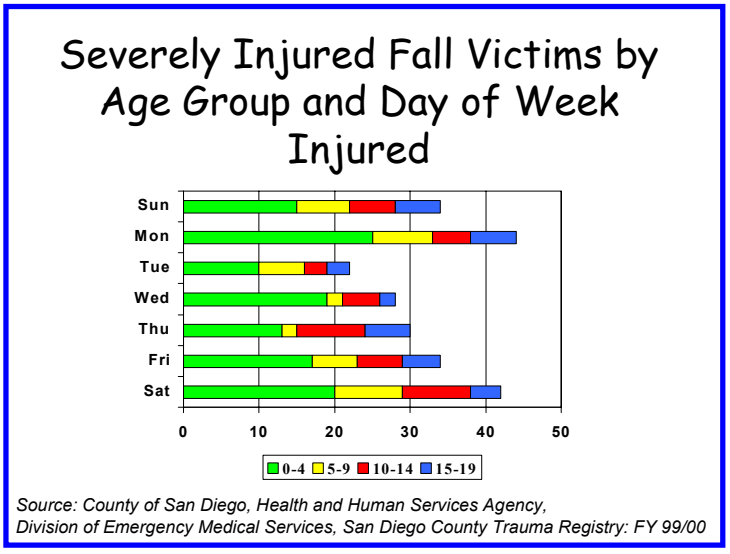


Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

Fifty-one percent of severely injured fall victims were under the age of five. This age group also had the highest rate of severe injury at 51/100,000, over 3 times the rate 15-19 year olds.

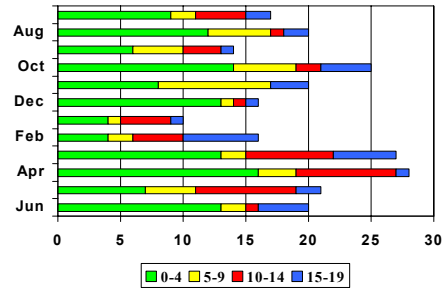


Overall, severe injuries from falls in victims under the age of 20 were most likely to occur on Mondays or Saturdays.



By month, severe injuries from falls were most likely to occur in March, April, and October.

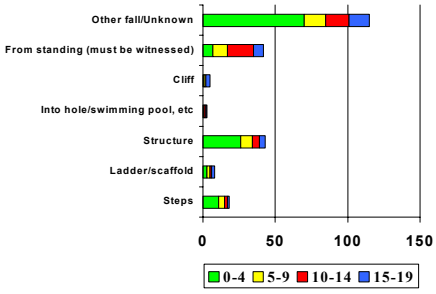
Severely Injured Fall Victims by Age Group and Month of Injury



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

When known, the most common mechanism of severe injury in victims under 20 were falls from structures and falls from standing.

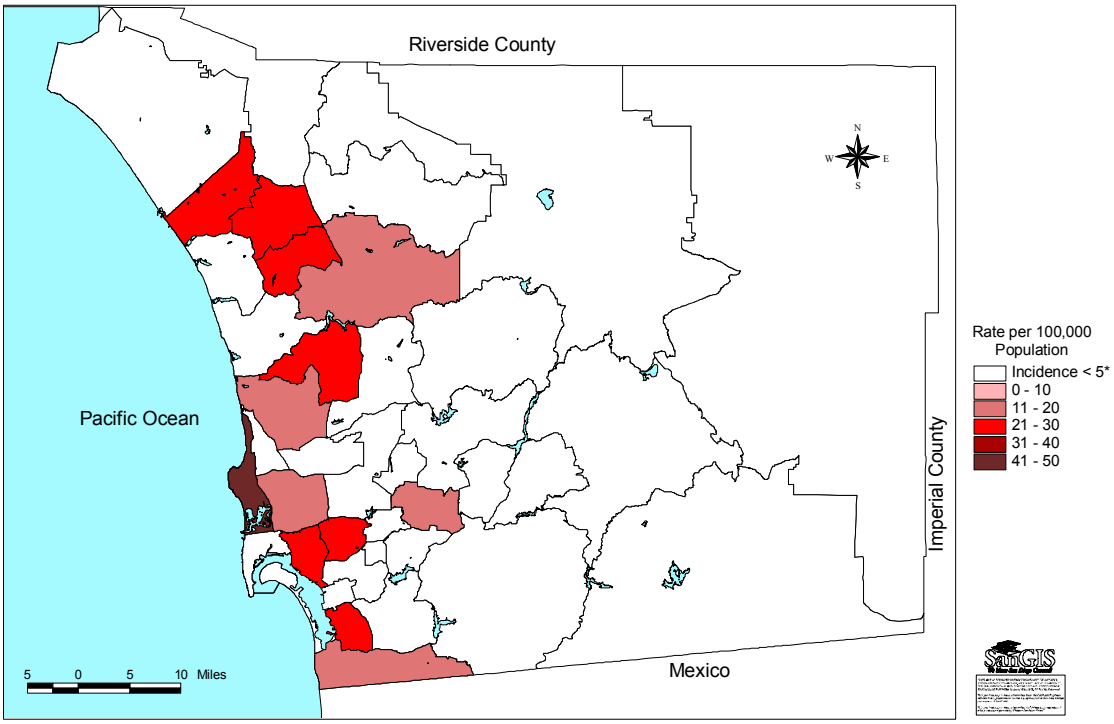
Severely Injured Fall Victims by Age Group and Mechanism



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

Geographically, the Coastal SRA had the highest rate of severe injury due to falls than any other region of the County, 46/100,000.

Severe Injury Due to Falls
Under the Age of 20 by Subregional Area



Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Trauma Registry, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.
*Rates not calculated on incidents less than 5.
Note: there were 79 cases with an unspecified SRA.

San Diego Safe Kids Coalition Prevention Activities

The Coalition continues to provide educational materials to parents and caregivers concerning falls from windows, baby walkers and stairways.

Prevention Activities You Can Do

- Never use a baby walker. Stationary devices such as "Exersaucers" are safe to use within the height and weight restrictions for the specific product.
- Install window guards or locks on all windows on second story and higher structures.
- Never place furniture in front of a window. Children will climb or bounce on the furniture and could possible fall out of the window
- Use safety gates to prevent children from gaining access to dangerous areas such as stairs.
- Never leave a child unattended on surface such as a changing table, bed or piece of furniture. Parents frequently discover that their child has reached a new developmental level as the result of sustaining an injury.

Local EMS Research

Epidemiology of Shopping Cart and Stroller Related Injuries to Children

Background: Each year almost 24,000 children 14 and under are treated in hospital emergency departments for injuries associated with shopping carts. Eighty-four percent of these injuries occurred to children under 5 years of age. For these children, these types of incidents have increased by 30% since 1985. Although numerous organizations have developed and disseminated shopping cart and stroller injury prevention tips and education materials, there are no known laws or regulations of such devices.

Methods: For the calendar year 1999, prehospital patient records were queried to determine the nature and extent of child-sustained shopping cart and stroller related injuries. Analysis included injuries according to age, gender, status of patient, location, type of injury, and incident description.

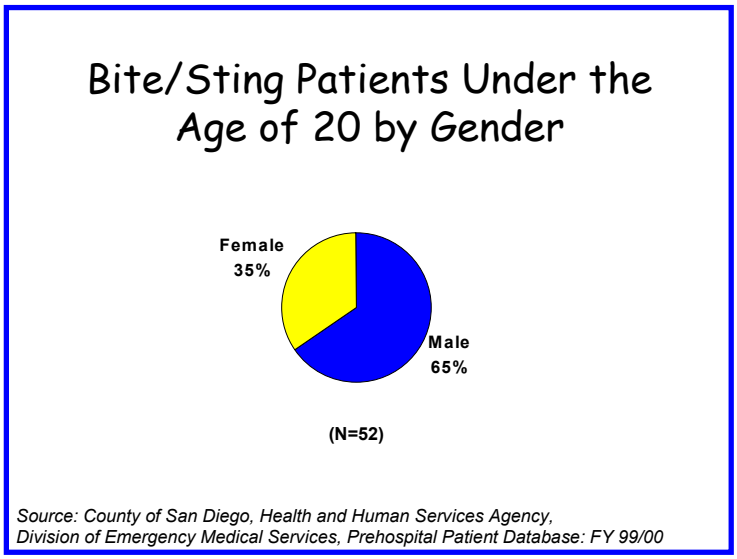
Results: Of the 80 valid cases, 39 (48.8%) were shopping cart related, 34 (42.5%) were stroller related and 1 case the device was described as a "toy cart". In addition there were 6 cases in which a child was experiencing a seizure in the stroller or shopping cart. Falls from shopping carts and strollers were the most common injury reported. Most of the cases involved children under 4 years of age (86.3%) and within this age group the number of incidents decreased as age increased. Sixty-nine percent of those with a patient outcome were transported to a medical facility. The majority of injuries were labeled as mild. However, majority (61.3%) of these children had a chief complaint of traumatic head/neck injury.

Conclusions: Shopping cart and stroller incidents happen as frequently as other types of injuries that are subject to regulations and receive more public health attention. For example, there were 39 drowning/near drowning incidents among 0-4 year olds in the prehospital setting during fiscal year 1998/99. This is roughly equal to the number of shopping cart injuries and to the number of stroller injuries. However, there exist numerous laws and regulations regarding pool safety and it is perceived as a greater threat to young children. Although most of these shopping cart and stroller injuries were "mild" in status the potential for severe head/neck injury exists. With most new shopping carts and strollers manufactured with safety straps, the challenge is to get parents to use them correctly and regularly.

Bite/Sting

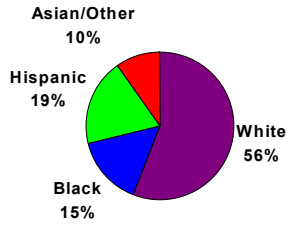
Between Killer Bees and Pit Bull attacks, the potential dangers of bite and sting injuries have been in the news disproportionately to their impact on children. A child is much more likely to be injured or killed in a motor vehicle crash, especially if unrestrained, than to be bitten or stung by an animal, insect, spider, reptile or fish.

Paramedic/EMT-1 Patients



There were 52 children under the age of 20 seen by paramedics/EMT-1s in San Diego. The majority (65%) were males. The majority of bite/sting patients were White (56%) or Hispanic (19%). Black children accounted for 15% while Asian/Other were 10% of patients.

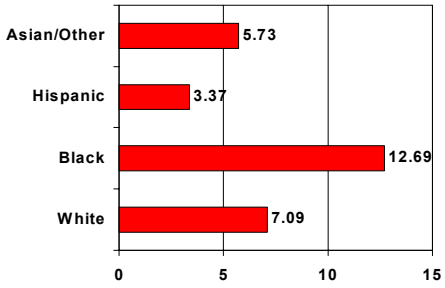
Bite/Sting Patients Under the Age of 20 by Race/Ethnicity



(N=52)

Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

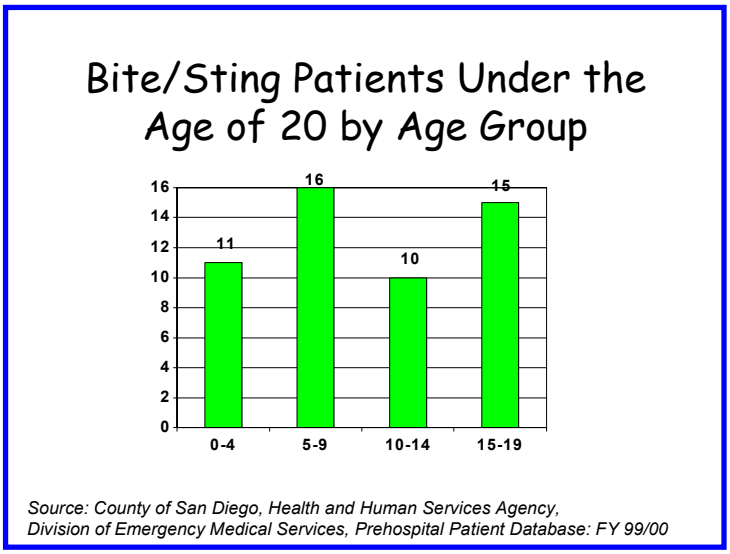
Rate of Bite/Sting Patients Under the Age of 20 by Race/Ethnicity



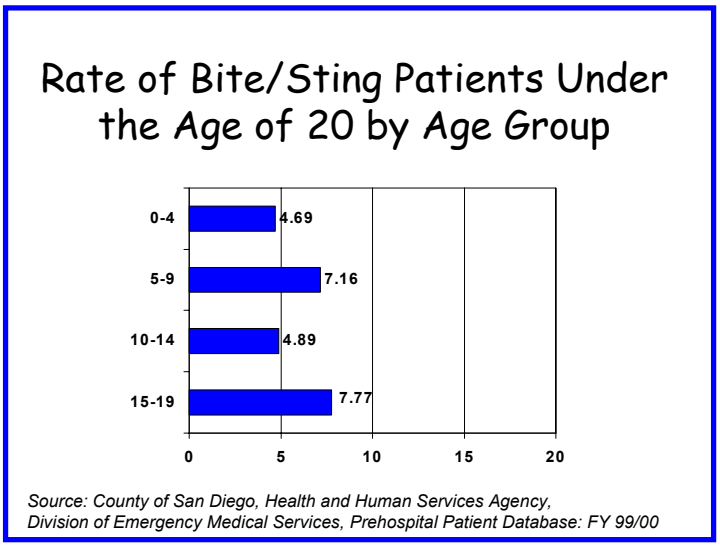
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

Black children had the highest rate of bite/sting injuries at 13/100,000, almost double that of Whites (7/100,000) and more than double that of Asian/Others (6/100,000) and Hispanics (3/100,000).

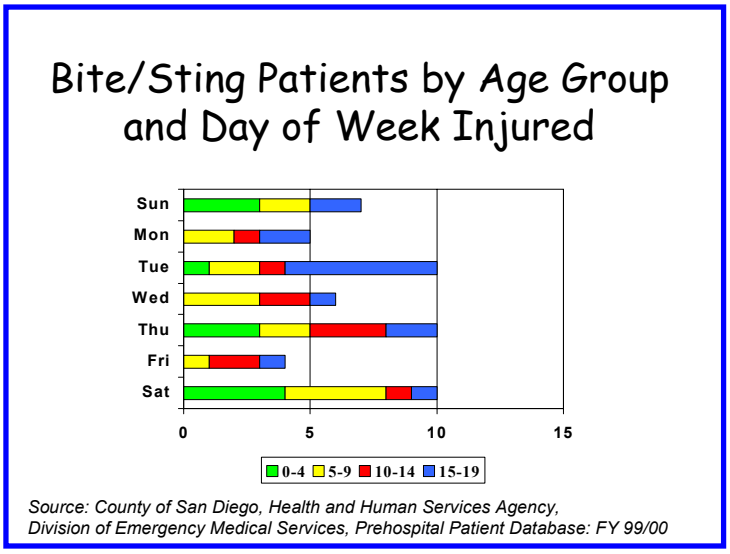
Children 5-9 accounted for 31% of patients closely followed by 15-19 year olds (29%). These were higher than the number of injuries in 0-4 and 10-14 year olds.



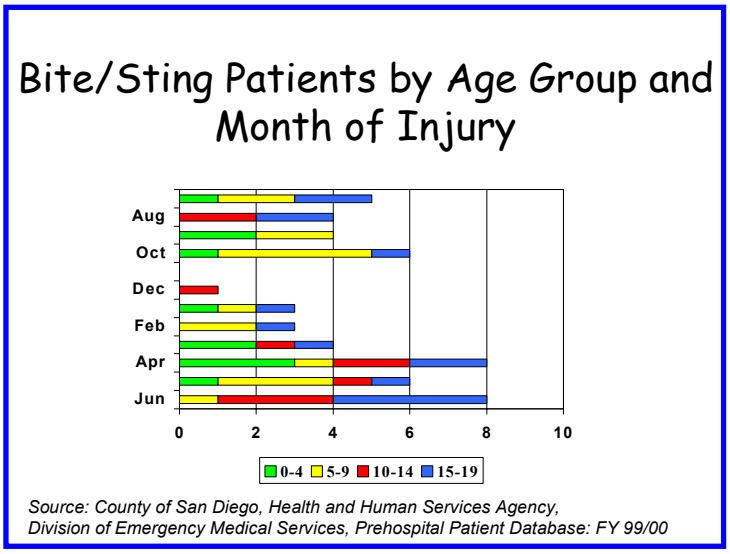
The rate of bite/sting patients under 20 was highest for children in the 15-19 age group at 8/100,000 followed closely by the 5-9 age group at 7/100,000. These rates were about one and a half times higher than the age groups of 0-4 and 10-14 (both 5/100,000).



Overall, children under the age of 20 were more likely to suffer bite/sting injuries on Tuesdays, Thursdays, and Saturdays. However, by age group two distinct patterns emerged. The youngest children were more likely to be injured on weekends while the oldest children were more likely to be injured during the week.



In addition, there were more bite/sting patients during the months of April and June.



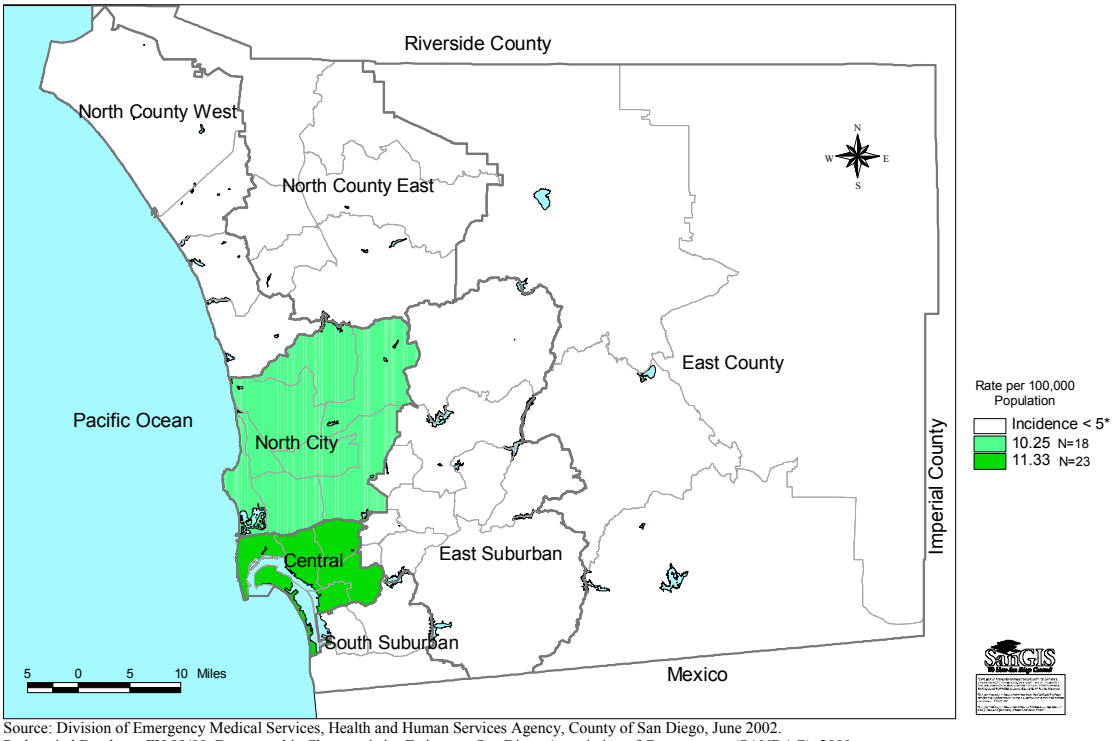
The largest number of bite/sting injuries for all age groups under 20 occurred at home.

Paramedic/EMT Bite/Sting Patients Under the Age of 20					
	0-4	**5-9**	**10-14**	**15-19**	**Total**
Home	8	10	3	5	26
Street Highway	1	2	3	3	9
Public Bldg	0	0	0	0	0
School	0	0	0	0	0
Rec Pblc Area	1	1	3	6	11
Med Facility	0	0	0	0	0
Other	1	2	0	0	3
Missing	0	1	1	1	3
Total	**11**	**16**	**10**	**15**	**52**

Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Data, Fiscal Year 99/00

There were 23 bite/stings in the Central MSA (11.33/100,000) and 18 in the North City MSA (10.25/100,000). The number of incidents in the remaining MSAs that required a paramedic/EMT response were too low to calculate rates.

Paramedic/EMT Bite/Sting Patients
Under the Age of 20 by Major Statistical Area



Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Prehospital Database, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.
*Rates not calculated on incidents less than 5.

San Diego Safe Kid Coalition Prevention Activities

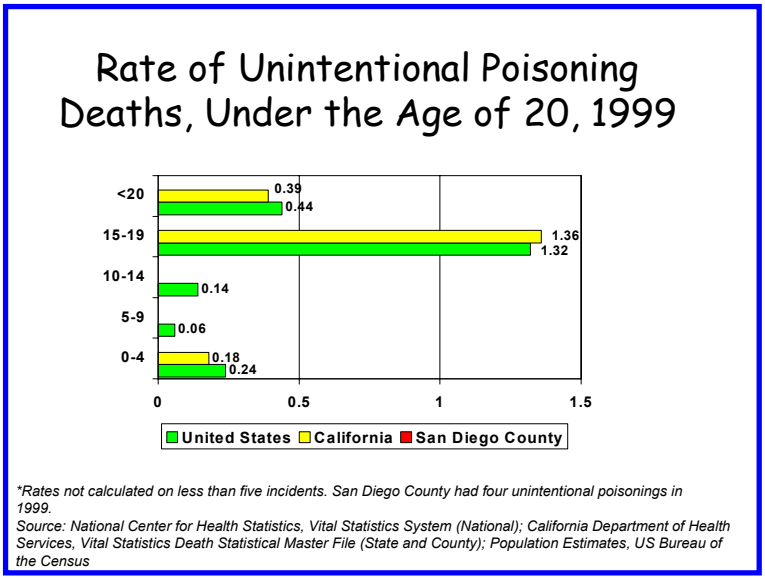
The Safe Kids Coalition currently does not have any activities in this injury area. It is being included because it must be regarded in the entire unintentional injury picture. The Home (Indoor) Injury task force is looking at the increasing concern over dog bites as a potential action area.

Prevention Activities You Can Do

- Teach your children to avoid strange or unfamiliar animals and to assume that they are dangerous.
- Always ask the owner's permission before petting a dog or other animal.
- Teach your children to respect animals. Most animals will not attack unless provoked and even teasing a family pet can have unintended consequences.
- Inspect your home and yard for signs of bee or wasp habitation. If you discover a hive or nest, leave it alone and call a professional exterminator immediately.
- If you are stung, seek medical attention immediately if you have difficulty breathing or other adverse reactions.

OD/Poisoning

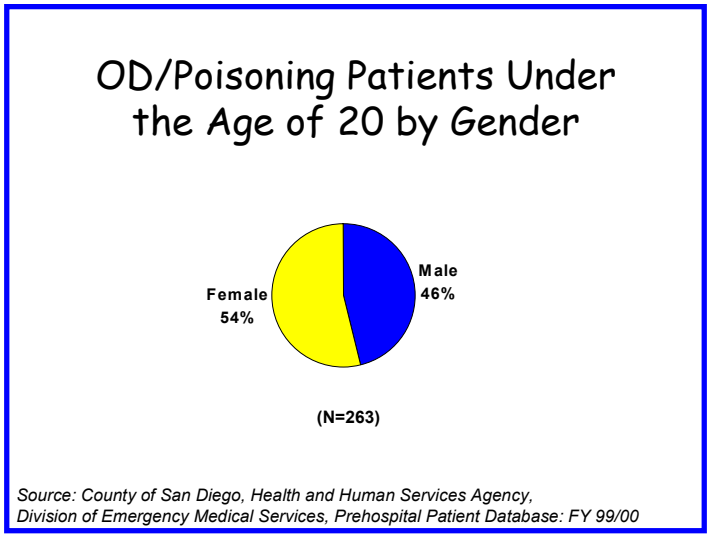
Poisonings account for approximately 11% of all injury deaths. However, the majority of these are intentional, usually suicides. Overdoses of recreational drugs are considered unintentional poisonings and make up the majority of unintentional deaths in the 15-19 year age group. In San Diego County there were not sufficient deaths due to unintentional poisoning to calculate comparison rates. The rate of unintentional poisoning death among 15-19 year olds in California exceeded the national rate (1.36/100,000 compared to 1.32/100,000).



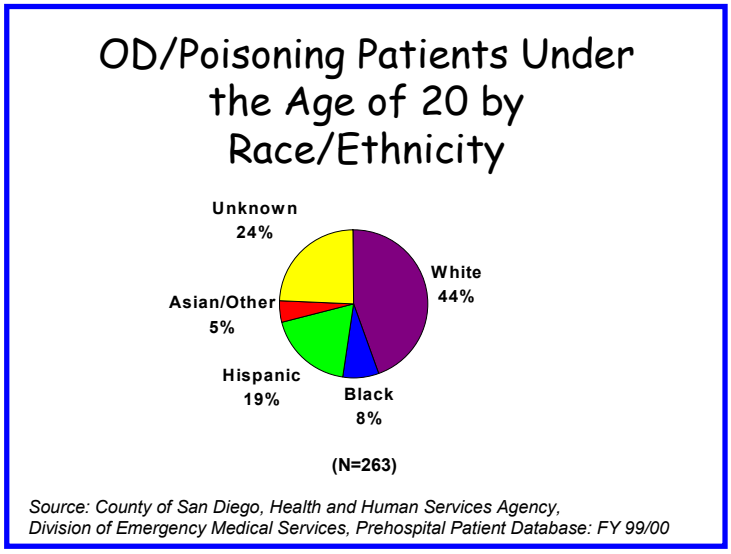
**Rates not calculated on less than five incidents. San Diego County had four unintentional poisonings in 1999.*
Source: National Center for Health Statistics, Vital Statistics System (National); California Department of Health Services, Vital Statistics Death Statistical Master File (State and County); Population Estimates, US Bureau of the Census

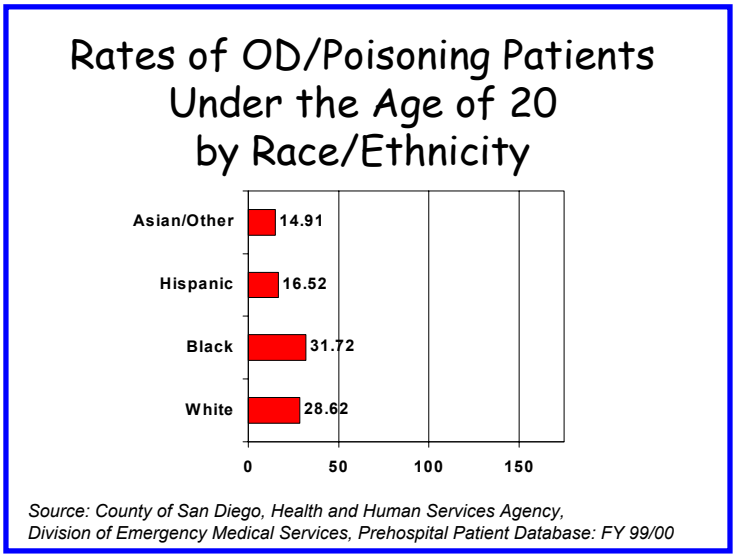
Paramedic/EMT-1 Patients

There were 263 children under the age of 20 seen by paramedics/EMT-1s in San Diego County. The majority (54%) were female.

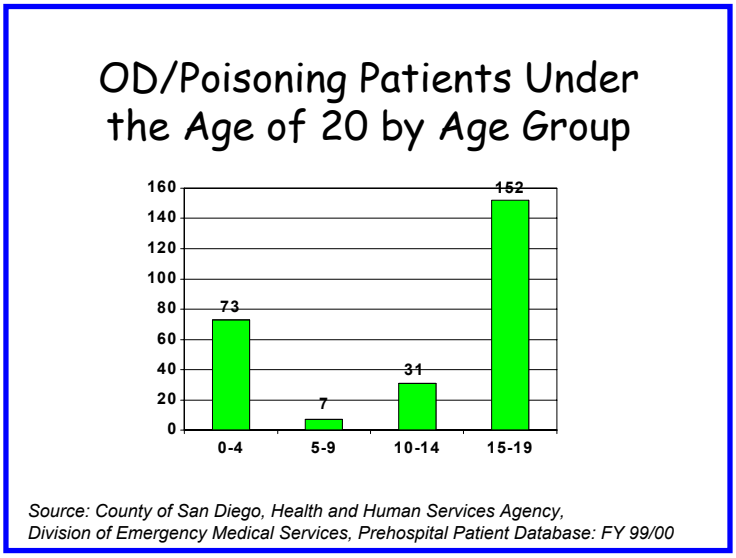


Whites accounted for 44% of OD/poisoning patients under the age of 20. This is followed by Hispanic children (19%) and Black children (8%), while Asian/Other were only 5% of patients. Race/Ethnicity was unknown in 24% of patients.



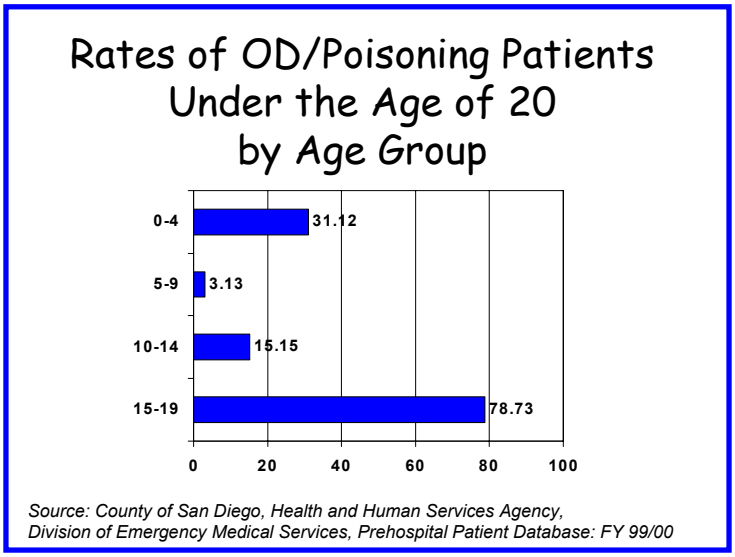


Black children had the highest rate of OD/poisoning at 32/100,000. This rate was significantly higher than the rates of Whites (29/100,000), Hispanics (17/100,000), and Asian/Others (15/100,000).

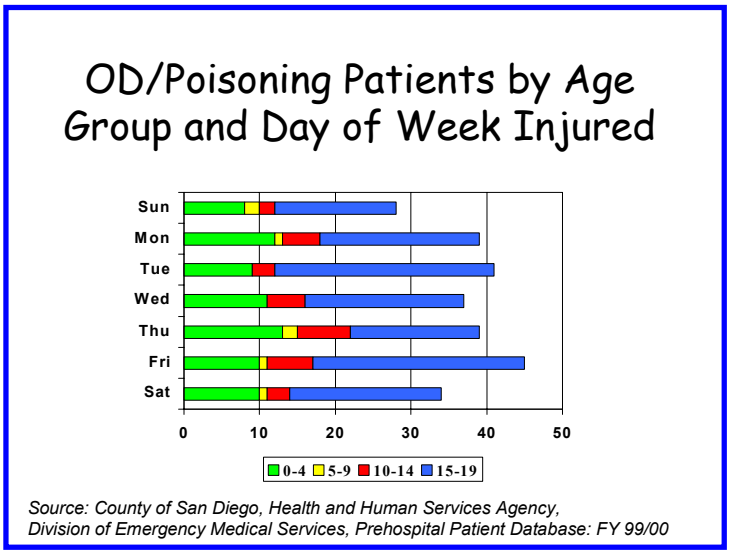


The age group 15-19 accounted for 58% of OD/poisoning patients. The next highest percentage occurred in the age group of 0-4 years at 28%. Children between the ages of 10-14 accounted for 13% of patients, and the lowest percentage occurred in the age group 5-9 years (3%).

The 15-19 year age group also had the highest rate of OD/poisoning at 79/100,000. The youngest children ages 0-4 had the next highest rate at 31/100,000, followed by 10-14 year olds at 15/100,000. The 5-9 year olds had a much lower rate of OD/poisoning at 3/100,000.

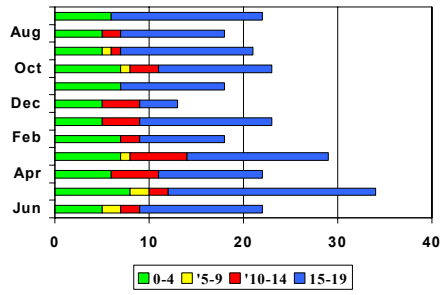


Children under the age of 20 were more likely to be injured during the week rather than the weekend.



The highest number of OD/poisoning incidents for all age groups occurred in March and May. Among the 15-19 year olds there was no significant seasonal variation except in December when incidence was lowest. Among those under age five, more OD/poisonings occurred in May than any other month.

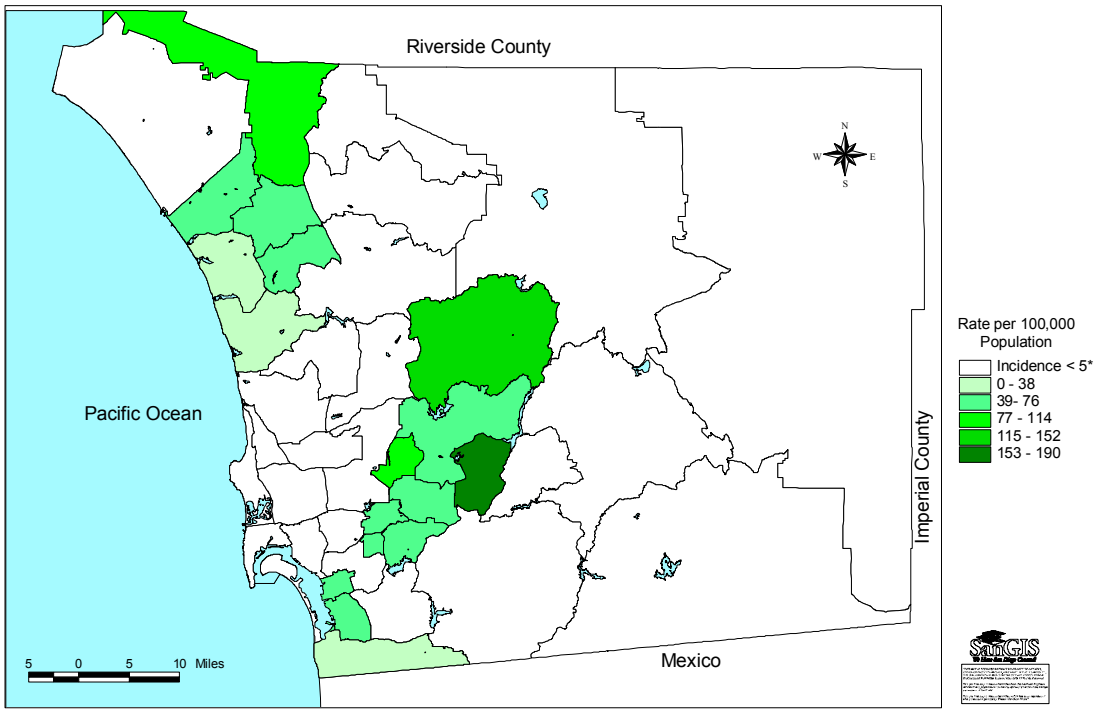
OD/Poisoning Patients by Age Group and Month of Injury



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

The highest rates of OD/poisonings that required paramedic/EMT responses were concentrated in three MSAs; North County West, East Suburban, and South Suburban. The SRAs with the highest rates were Harbison Crest (183/100,000), Ramona (123/100,000), Santee (107/100,000), and Fallbrook (80/100,000).

Paramedic/EMT OD Poisoning Patients
Under the Age of 20 by Subregional Area



Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Prehospital Database, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.
*Rates not calculated on incidents less than 5.
Note: there were 7 cases with an unspecified SRA.

Local Statistics from San Diego Poison Control 2001

	Number	Percentage		
Total Human Exposures:	24,413	100%		
Total Exposures in Children < 5 years of age	11,087	45.4%		
Total Exposures in Children 6-12 years	1,540	6.3%		
Total Exposures in Children 13-19	1,815	7.4%		
Total Exposures in Adults	9,971	40.9%		
Site of Exposure:	Number	Percentage		
Own Residence	22,162	90.8%		
Other Residence	206	0.8%		
Workplace	1,181	4.8%		
Health Care Facility	7	0.03%		
School	245	1.0%		
Restaurant/Food Service	47	.2%		
Others	39	.2%		
Site Where Exposure Was Managed:	Number	Percentage	Number	Percentage
Non-Health Care Facility	19,542	80.0%		
Health Care Facility	4,370	17.9%		
Treated and Released			2,478	56.7%
Admitted to Critical Care Unit			513	11.7%
Admitted to Non Critical Care Unit			323	7.4%
Admitted to Psych			392	9.0%
Lost to Follow Up			664	15.2%
Other/Refused/Unknown	475	2.1%		
Outcome of Exposure:	Number	Percentage		
No Effect	6,629	27.2%		
Minor Effect	14,866	60.9%		
Moderate Effect	677	2.8%		
Major Effect	145	.6%		
Death	7	.0%		
Unable to Follow - Potentially toxic	1,328	5.4%		
Illness determined to be unrelated to the exposure	761	3.1%		
Top 10 Substances In Pediatric Exposures:	Number	Percentage		
Cosmetics	1,412	12.7%		
Household Cleaners	1,032	9.3%		
Foreign Bodies	988	8.9%		
Topical/Dermatological Medicines	767	6.9%		
Plants	754	6.8%		
Analgesic Medicines	728	6.7%		
Cough and Cold Medicines	602	5.4%		
Vitamins	441	4.0%		
Pesticides	348	3.1%		
Non-steroidal anti-inflammatory drugs	325	2.9%		

Top 10 Substances in Adult Exposures:	Number	Percentage
Analgesic Medications	969	9.7%
Bites and Envenomations	940	9.4%
Cleaning Agents	908	9.1%
Sedative and Hypnotic Medications	669	6.7%
Food Poisoning	557	5.6%
Antidepressant Medications	541	5.4%
Insecticides and Pesticides	516	5.2%
Miscellaneous Chemicals	442	4.4%
Cosmetics and Personal Care Products	426	4.3%
Alcohols	388	3.9%

San Diego Safe Kids Coalition Prevention Activities

The San Diego Safe Kids Coalition has been actively supporting full funding for the Poison Control System both on a national and state level. Stickers promoting the use of the California Regional Poison Control Network were distributed throughout San Diego at Health Fairs.

Prevention Activities You Can Do

- ♥ Keep the phone number for Poison Control next to your telephone.
- ♥ Keep all household cleaners, automotive products, pool/spa chemicals, etc., locked up and out of the reach of children. Install cabinet locks.
- ♥ Make sure all medications have childproof caps. Keep in mind that pills look like candy to children.
- ♥ Store products in their original containers to avoid tragic mistakes. In the wrong container, Pine Sol looks just like apple juice.
- ♥ Cosmetics may be toxic to children and should be treated with the same care as other household chemicals.
- ♥ Plants can be toxic or lethal. Know what is in your house and garden as well as other areas where your child spends time. For information concerning a specific plant, contact your local garden center, Poison Control or Agricultural Extension Service.
- ♥ Place purses and suitcases of guests out of the reach of curious children. Senior citizens frequently travel with prescription medications that can be lethal to small children.
- ♥ Make sure that places your child frequents, such as Grandma's house, practice safe storage techniques.

Local EMS Research

Danger in Grandma's Purse: Poisonings and Over Doses in Children Under the Age of 5

Background: Children are at greater risk of unintentional poisoning deaths than adults because they are smaller, have faster metabolic rates and are less physically able to handle toxic chemicals. Additionally, their natural curiosity and desire to put things in their mouth increases their poisoning risk. In 1998 more than 1.1 million such poisonings under the age of 5 were reported to poison control centers across the United States. This same year, 36 children under the age of 5 died.

Methods: Poisoning/overdose cases under 5 years of age were abstracted from the San Diego County MICN database from 1997-2000. This database includes narrative information as well as prehospital information for all calls where base hospital contact was made (required for pediatric patients). For the purposes of this study, poisoning may include ingestion, inhalation, or chemical spills on the body (usually cleaning solutions).

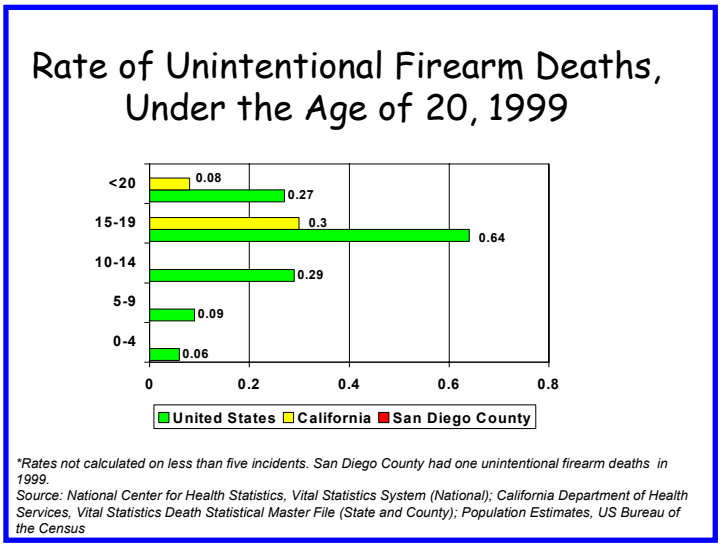
Results: There were 487 poisonings/drug over dose calls under the age of five from 1997-2000. Seven percent of these were under one year of age, an additional 38% of children were one, 35% were 2, 13% were 3, and 7% were 4 years of age. Fifty-five percent of these poisonings involved medications, either prescription or over the counter. An additional 17% were due to some type of household cleaners. Children under one year of age were most likely to be poisoned with medications both prescription and over the counter than other substances, while older children were more likely to ingest prescription medications. Eighty-four percent of calls were classified as mild, 12% as moderate and 1% as acute.

Conclusions: Children one year of age had the highest incidence of unintentional poisonings. Among all age groups, medications were the number one cause of unintentional poisonings. Most of these could have been prevented by use of child resistant caps on prescription and over the counter medications. Other unintentional poisonings could be prevented if hazardous materials were kept out of reach of children.

Unintentional Firearm Injuries

The vast majority of firearm deaths and injuries are intentional, either due to homicide or suicide. Unintentional firearm injuries among children generally occur when children find a loaded gun in the home and either play with it themselves or show it to their friends.

In San Diego County there were not sufficient deaths due to unintentional firearm injuries to calculate comparison rates. Nationally, the rate of unintentional firearm deaths was highest among 15-19 year olds. In California the incidence of death was too low among those under age 15 to calculate a rate.



In 1997, over 14,000 handguns were legally sold in San Diego County. This was a decrease of 50% from previous years.

Several studies have shown that parents consistently underestimate their children's knowledge of where guns, ammunition and keys are stored as well as their children's curiosity about guns especially in group settings. Children who were instructed minutes before never to touch a gun but to leave the room and get an adult, were overcome by their curiosity to handle the weapon and point it at their playmates when the adult was out of sight.

Paramedic/EMT-1 Patients

There were too few unintentional firearm deaths and injuries to children to present detailed information without compromising the privacy of individual patients.

San Diego Safe Kids Coalition Prevention Activities

Coalition members continue to promote the use of gun/trigger locks on all guns and responsible gun storage.

Prevention Activities You Can Do

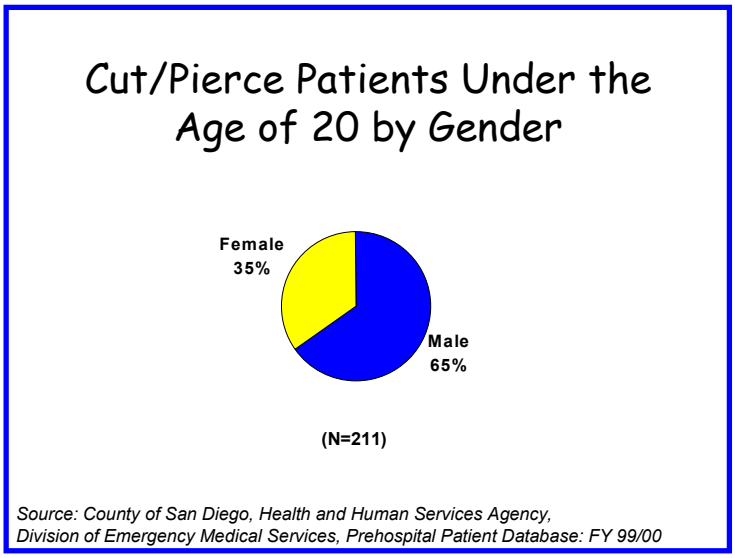
- Unload your guns and lock them up! Curious children can usually find objects that adults have hidden and presume to be out of their reach.
- Place gun locks/trigger locks on all guns. Keep the key with you at all times.
- Store ammunition in a locked container away from the guns.
- Ask the responsible adults whether there are any firearms in the homes your child visits and how they are stored. It is your responsibility to ask about potential hazards your child may be exposed to.

Unintentional Cut/Pierce

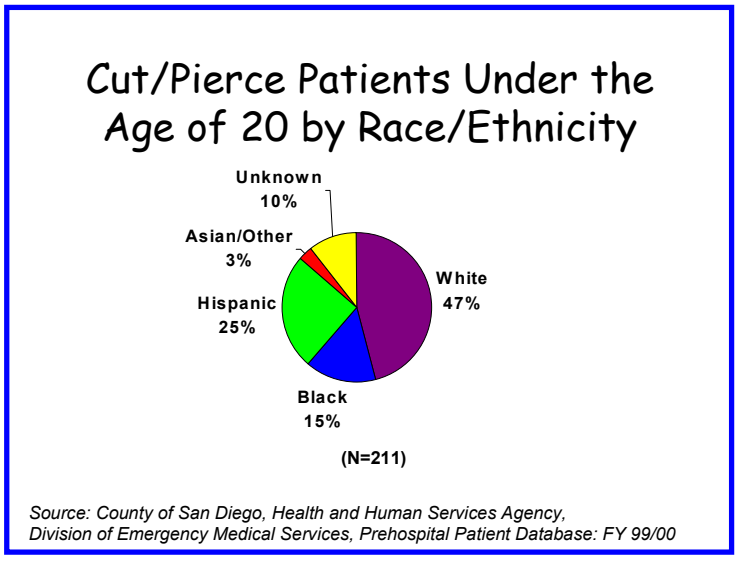
There is no national or state comparison data on unintentional cutting/piercing deaths. Cutting/piercing is generally associated with intentional injury such as homicide or suicide. Unintentional cutting/piercing is rarely fatal although it is a significant cause of injury among older children.

Paramedic/EMT-1 Patients

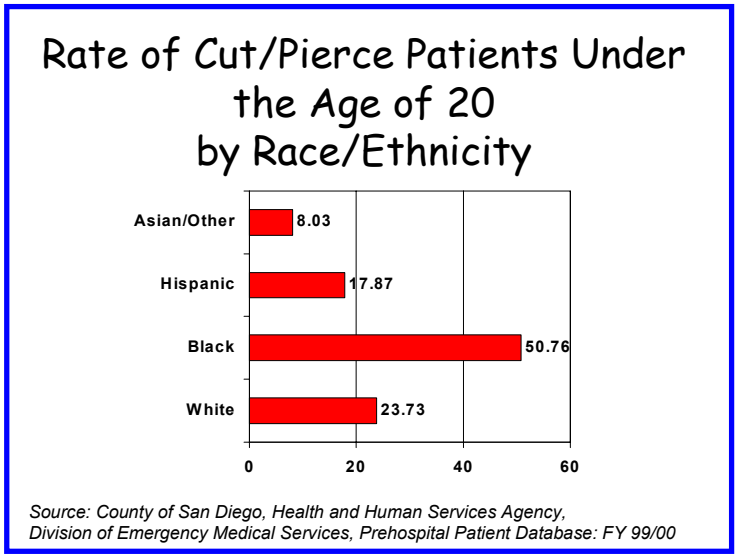
There were 211 children under the age of 20 seen by paramedics/EMT-1s in San Diego. The majority (65%) were male.



The majority of unintentional cutting/piercing patients under 20 were White (47%) and Hispanic (25%). Black children accounted for 15% of patients, while Asian/Other children accounted for 3% of patients. Race/Ethnicity was unknown in 10% of patients.

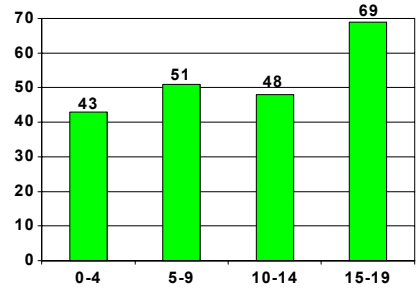


Black children under the age of 20 were at the highest risk of unintentional cutting/piercing injuries with a rate of 51/100,000. This was over twice the rate of White children (24/100,000). Hispanic children had a rate of 18/100,000 while Asian/Other had the lowest rate at 8/100,000.



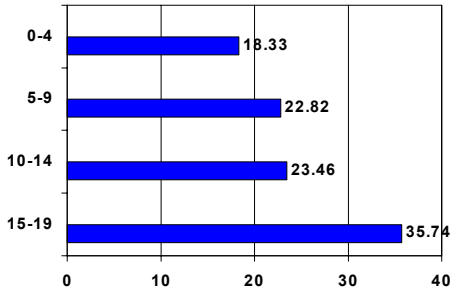
Thirty-two percent of cutting/piercing patients were between the ages of 15-19 years. This age group also had the highest rate at 36/100,000. Children in the age group of 5-9 accounted for 24% of patients (23/100,000) followed by children ages 10-14 accounting for 23% of patients (23/100,000). Children under 5 accounted for 20% of patients and also had the lowest rate (18/100,000).

Cut/Pierce Patients Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

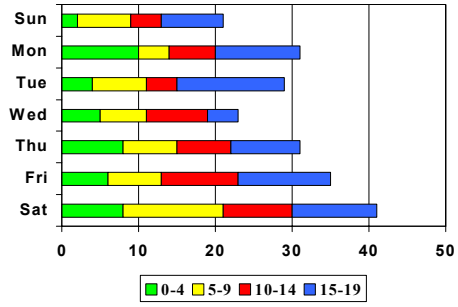
Rate of Cut/Pierce Patients Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

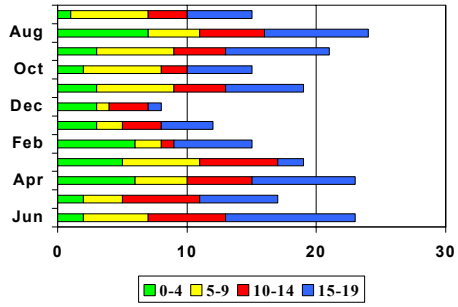
Children under the age of 20 were more likely to suffer cutting/piercing injuries on Fridays or Saturdays. The months that had the highest occurrence of injury for patients under 20 were April, June, and August.

Cut/Pierce Patients by Age Group and Day of Week Injured



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

Cut/Pierce Patients by Age Group and Month of Injury



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

The San Diego Safe Kids Coalition Prevention Activities

The Safe Kids Coalition currently does not have any activities in this injury area. It is being included as part of the overall unintentional injury picture.

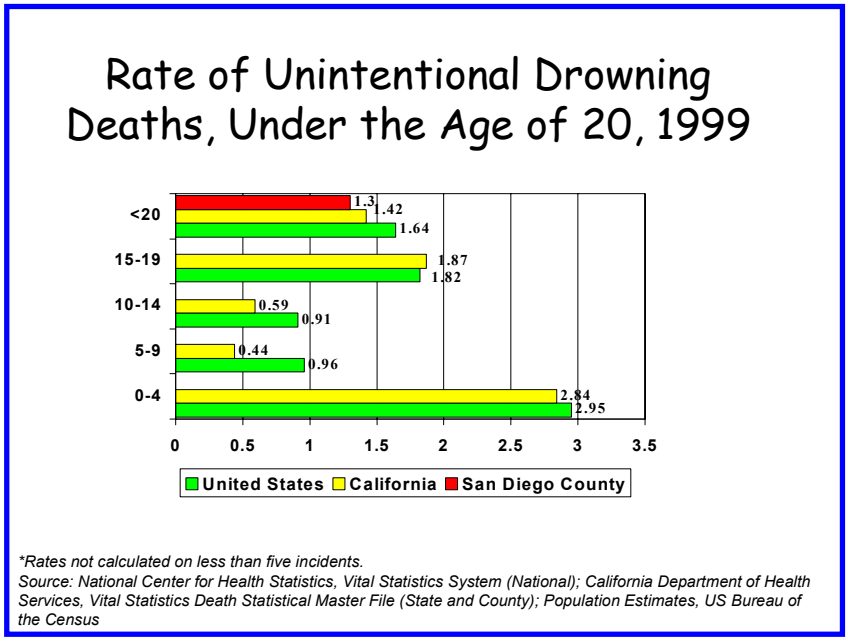
Prevention Activities You Can Do

- Keep all knives, scissors, and other sharp objects out of the reach of children.
- Always supervise your children when they use tools and other sharp implements around the house.

Drowning Injuries

Nationally, drowning is one of the leading causes of unintentional death among children under 20 years of age. Young drowning victims are much more likely to be male and of minority race or ethnicity. Children under the age of five are at greatest risk of drowning, followed by 15-19 year olds. Among the youngest victims, most drowning deaths occur in swimming pools or spas. Bathtub and bucket drowning deaths have decreased dramatically in recent years due to prevention messages aimed at parents and caregivers. A young child can drown in less than six inches of water. Older children are more likely to drown away from home in rivers, lakes and oceans for example.

In San Diego County, the rate of drowning death in the individual age groups are actually lower than the national or California rates and are too low to calculate rates. These low numbers contribute to San Diego County having one of the lowest drowning rates in Southern California at 1.3 deaths per 100,000 children under age 20.

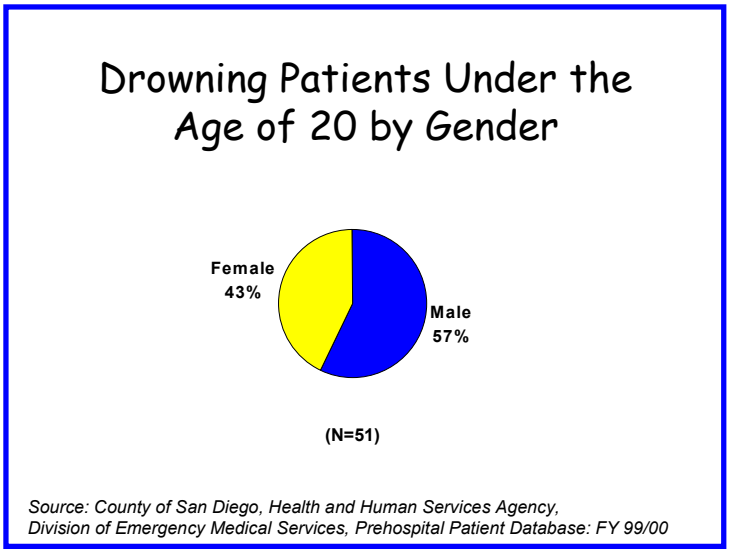


*Rates not calculated on less than five incidents.
Source: National Center for Health Statistics, Vital Statistics System (National); California Department of Health Services, Vital Statistics Death Statistical Master File (State and County); Population Estimates, US Bureau of the Census

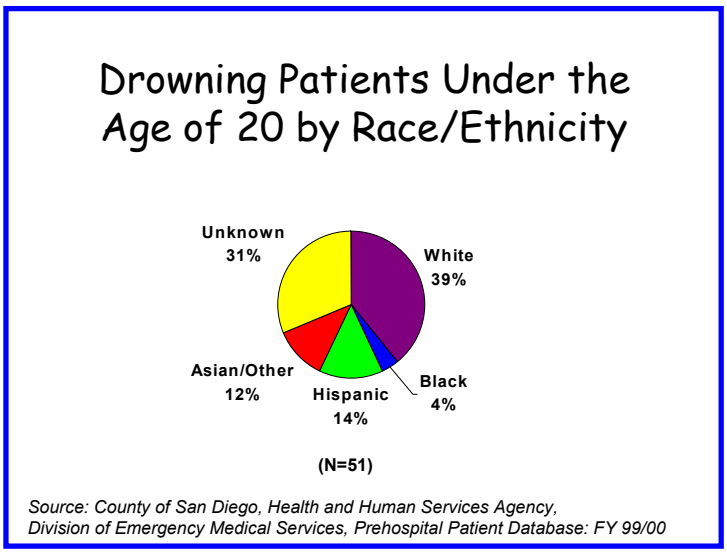
Paramedic/EMT-1 Patients

In San Diego County, paramedics/EMT-1s responded to 51 drowning and near drowning patients under the age of 20 between July 1, 1999 and June 30, 2000. By definition, drowning refers to events which have a fatal outcome and near drowning refers to nonfatal events. However, since the mechanism of injury and the prevention opportunities are the same, for ease of reading we will use the term drowning to refer to events with either outcome.

The majority (57%) of the drowning patients seen by paramedics/EMT-1's were male.



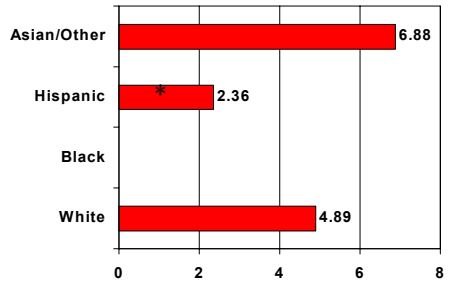
The majority of drowning patients were White (39%) or Hispanic (14%). Blacks made up 4% and Asian/Others made up 12% of drowning patients seen. Race/ethnicity was unknown for 31% of the patients.



However, to fully understand the risk drowning poses to children by racial or ethnic group it is necessary to examine the rates of drowning by racial or ethnic group. A rate measures the risk of a child of a certain racial or ethnic group becoming a drowning patient based on the number of children in the group who were injured and the total number of children in that group.

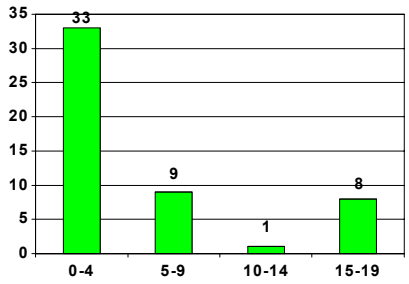
Asian/Other children had the highest risk of drowning with a rate of 7/100,000. White children also had a high risk with a rate (5/100,000) double that of Hispanic children (2/100,000). So even though more White and Hispanic children became drowning patients, Asian/Other children were at greater risk of becoming drowning patients.

Rate of Drowning Patients Under the Age of 20 by Race/Ethnicity



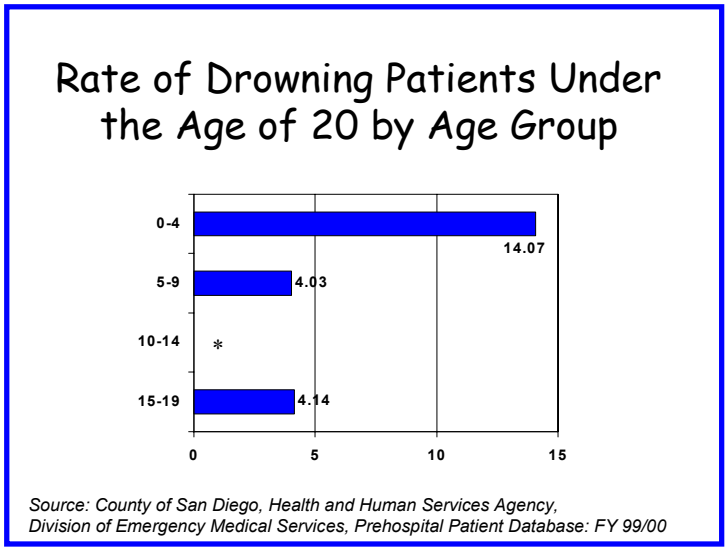
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

Drowning Patients Under the Age of 20 by Age Group

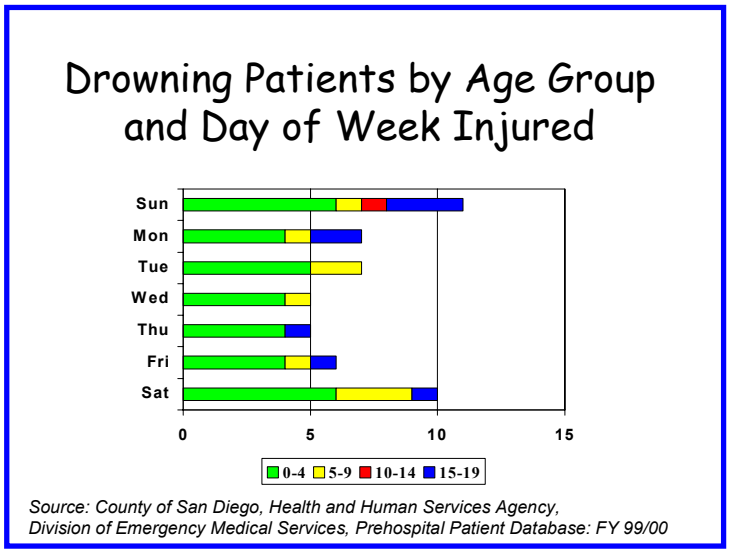


Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

Just over half of the drowning patients were under the age of five (N=33) and this group is at twice the risk of drowning as the older children with a rate of 14/100,000. In other words, 14 of every 100,000 children under the age of five in San Diego County became drowning patients seen by paramedics/EMT-1s.



Considering all children under age 20, the most drownings occurred on Saturday and Sunday and the fewest occurred on Wednesday and Thursday. A similar pattern was seen when drownings were separated by age group. Among the youngest children, most drownings occurred on Saturday and Sunday. Higher numbers were also seen on either of those two days for 5-9 year olds and 15-19 year olds. Only one patient was seen in the 10-14 year old age group.



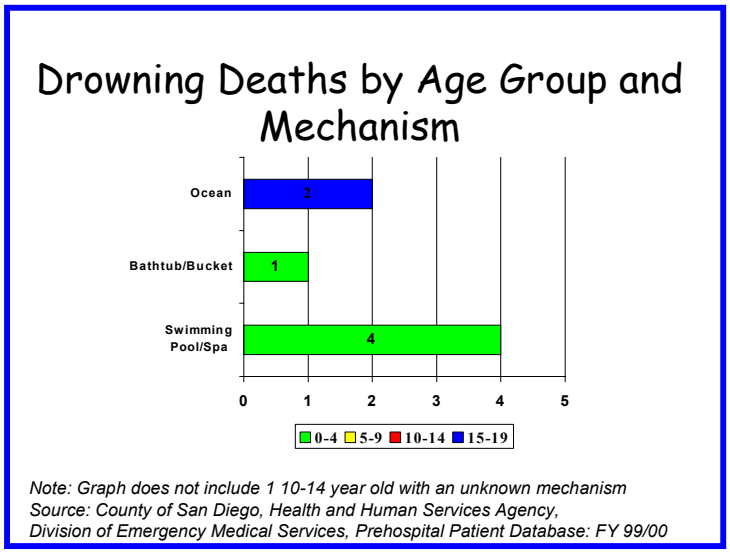
The age groups also differed by where the drowning occurred. The younger children were most likely to be injured at a home, either theirs or someone else's. The older children were more likely to be injured at a recreation or public area.

Paramedic/EMT Drowning Patients Under the Age of 20

	0-4	5-9	10-14	15-19	Total
Home	22	2	0	1	25
Street Highway	1	1	0	1	3
Public Bldg	3	2	1	0	6
Rec Pblc Area	2	1	0	3	6
Med Facility	1	0	0	0	1
Other	4	3	0	3	10
Total	**33**	**9**	**1**	**8**	**51**

Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Data, Fiscal Year 99/00.

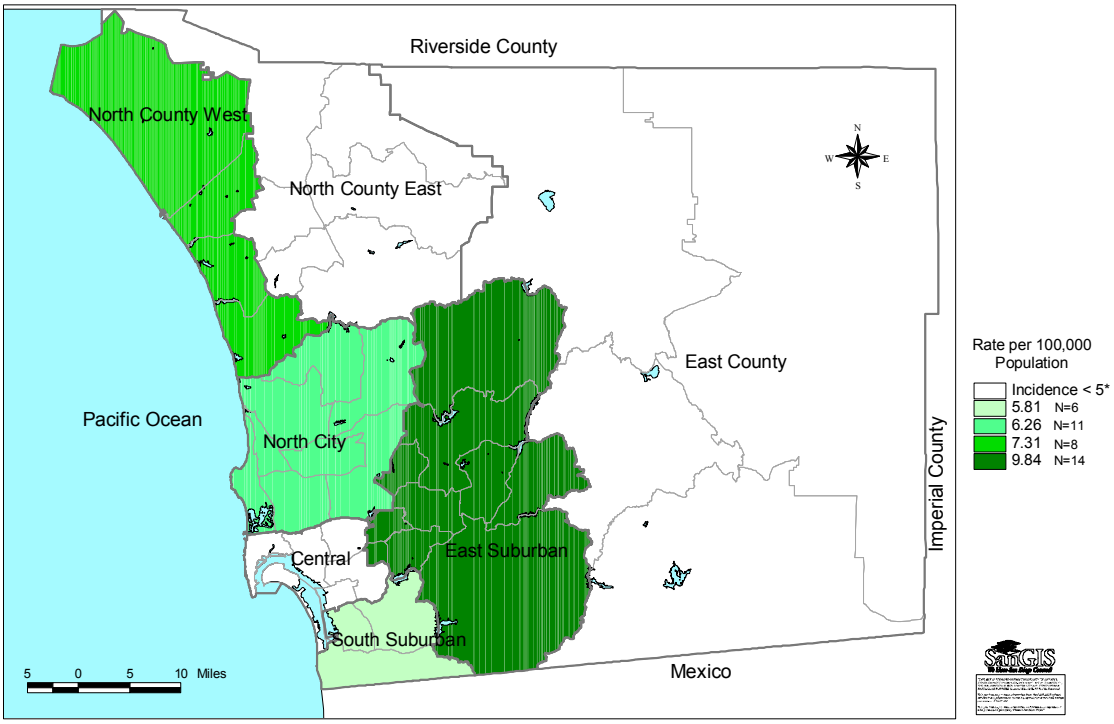
Of those children who died, the majority were children 0-4 years of age who drowned in either a bathtub/bucket or swimming pool/spa. There were two ocean drownings, both of which were 15-19 years of age.



Note: Graph does not include 1 10-14 year old with an unknown mechanism
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

The East Suburban MSA of San Diego County had the highest rate of drowning patients. At 9.84/100,000, children in the East Suburban area were almost four times more likely to become drowning patients than children in the North County East area.

Paramedic/EMT Drowning Patients
Under the Age of 20 by Major Statistical Area



Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Prehospital Database, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.
*Rates not calculated on incidents less than 5.
Note: there were 4 cases with an unspecified SRA.

San Diego Safe Kids Coalition Prevention Activities

Over the last twenty years, the rate of drowning among children has decreased substantially due in large part to efforts to make pools and spas less accessible to young children. The Safe Kids Coalition was very active in the passage of AB3305 in 1996 that required all new pools constructed in California to have an approved safety device in place. Recently new legislation, AB 2455, would require at least two approved safety devices to be in place. We are hopeful that this legislation will pass and be signed into law by Governor Davis. While it will not prevent drowning in residential swimming pools, it will provide an additional barrier between a child and the pool, thereby increasing the safety of the child.

The local chapters of the Independent Pool and Spa Service Association (IPSSA) contacted the Coalition regarding the development of a drowning prevention campaign their members could adopt. Water Watcher Tags, co-branded with the IPSSA and Safe Kids logos and important drowning prevention information were produced for distribution by IPSSA members. The local chapters are working with chapters in other regions and states in hopes they will adopt this program as well. This partnership has increased the awareness of the public to the drowning prevention issue and helped to secure additional media coverage to this important issue.

Prevention Activities You Can Do

- Never leave a child unsupervised, even for a minute, around water. Brain damage can occur in as little as three minutes.
- Install a minimum 5 foot, non-climbable fence to prevent children from wandering into your pool area. Also, install a barrier fence between your house and the pool to protect your children and other child visitors.
- Keep outdoor furniture away from the fence so that it can not be used to climb on to gain access to the pool.
- Check the neighborhood to determine if any pools and spas are unfenced. Children often drown in other people's pools and spas.
- Make sure pool gates are self-locking and self-latching. Gates should be installed so that they must be pulled to open rather than pushed since toddlers instinctively push on objects to gain access.

- If your child is missing, be sure to check the pool area first and go to the edge and look down.
- Keep a phone by the pool at all times.
- Follow American Academy of Pediatrics (AAP) guidelines that children under 5 are too young to be considered "water safe" merely because they have attended "swimming lessons".
- Always supervise children in the bath. The use of such objects as Bath Rings can provide parents with a false sense of security causing them to leave the child alone. Doing so, even for a moment, has often spelled tragedy.
- Keep the door to the bathroom closed and the toilet lid down.
- Empty all buckets and containers of standing water. Toddlers can drown in as little as six inches of water in a bucket because their heads are heavier than the rest of their bodies and they can't pull themselves out.
- Teach your children to always swim in a lifeguarded area.
- Drinking alcohol and water activities don't mix. Be sure that alcohol doesn't interfere with your or your child's ability to make good choices about what is safe and what isn't. Adolescent drowning is often associated with alcohol consumption.
- Learn Pediatric CPR and take a refresher course at least every two years.

Local EMS Research

It Only Takes a Minute: Drownings and Near Drownings in Children Under the Age of 15

Background: Nationally, drowning/submersion is the second leading cause of injury death among those under the age of 15 and accounted for 859 deaths in 1999. SAFE KIDS estimates that for every child who drowns, four more are hospitalized for a near drowning and for every child hospitalized four more are treated in emergency rooms. Many of these incidences could have been prevented if a barrier with self-locking doors and door alarms were installed on all doors leading to a pool.

Methods: San Diego County Emergency Medical Services Prehospital MICN records and Medical Examiner Records were queried for 1997-2000 to determine the nature and extent of drowning and near drowning injuries for 0-14 year olds in San Diego County. Detailed narrative information was examined to determine the circumstances surrounding the incident including the circumstance (pool, ocean, bathtub, and bucket), age, gender, severity, location, and incident description. This report includes incidences where a paramedic/EMT responded to a 911 call.

Results: There were 268 paramedic/EMT responses for drowning/near drowning incidents in San Diego County for individuals under the age of 15 from 1997-2000. The majority of these calls (69%) were to incidences of a pool or hot tub near drowning, followed by an ocean near drowning (13%). During this same time period there were 40 drowning deaths. Sixty-six percent of the calls were to individuals under the age of five. Seventy-five percent of these calls were to swimming pool/hot tub incidents and another sixteen percent were due to a near drowning in a bathtub. Emergency personnel classified twenty-four percent of the calls as acute. Sixty-six percent of these acute calls were children under the age of five.

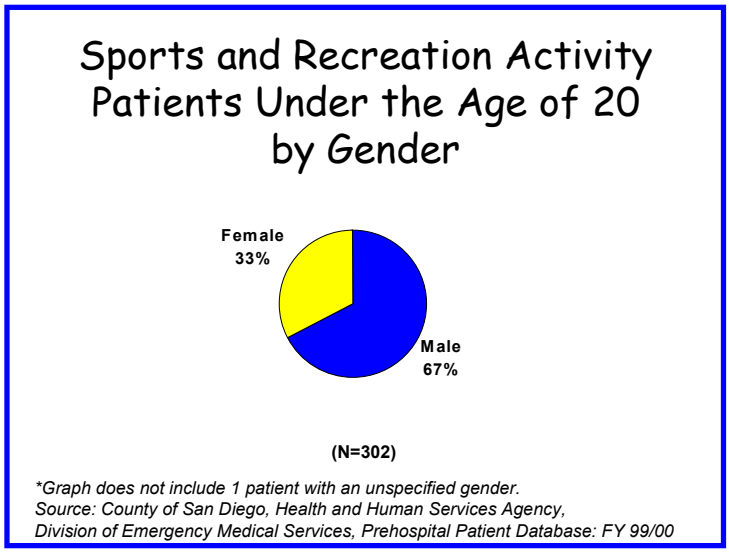
Conclusion: The data shows that the incidence of drowning/diving incidents averages 67 paramedic/EMT calls per year for those under the age of 15. An examination of the Medical Examiners Records shows that about ten children per year die due to drowning. Most of the incidents occurred when the parent just turned their backs for just a moment. A child can sustain severe irreversible brain damage in as little as three minutes.

Sports and Recreation

This category of injury includes organized team sports such as soccer, football or baseball, individual recreational activities such as ATV injuries, water transportation, animal being ridden (such as a horse), rollerblading and skateboarding, as well as falls from trees or playground equipment.

There is no national or state data available on sports and recreation injury deaths. Most of these deaths are grouped together with falls or stuck by blunt object. While the deaths in the category are very few and difficult to ascertain, the number of nonfatal injuries are substantial.

Paramedic/EMT-1 Patients

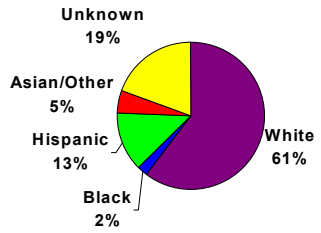


Paramedics/EMT-1's collect data on patients who were specifically hit or kicked during sports activities, ATV injuries, animal being ridden, and water related injuries. Of these the majority were male (67%).

The majority of children injured were White (61%), however race/ethnicity was not known in 19% of patients. Thirteen percent of patients were Hispanic, 2% were Black and 5% were Asian/Other.

Among those patients for which race or ethnicity was known, the highest rate or greatest risk was among Whites (45/100,000) with a rate of over three times any other race/ethnic category. Therefore, White children were at significantly greater risk of being injured severely enough to require an emergency response by paramedics/EMT-1s during sports/recreation activities.

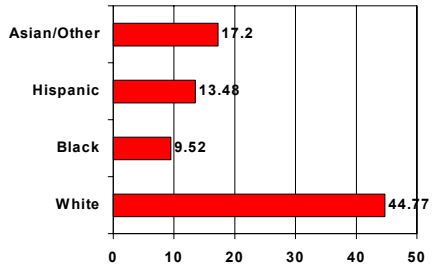
Sports and Recreation Activity Patients Under the Age of 20 by Race/Ethnicity



(N=303)

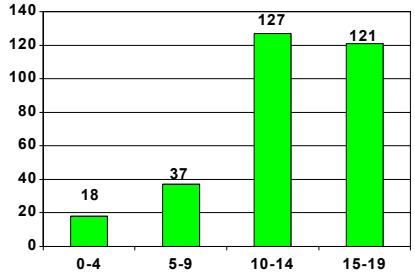
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

Rate of Sports and Recreation Activity Patients Under the Age of 20 by Race/Ethnicity



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

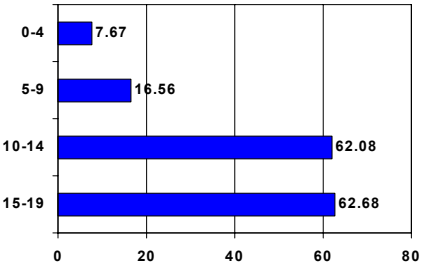
Sports and Recreation Activity Patients Under the Age of 20 by Age Group



Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

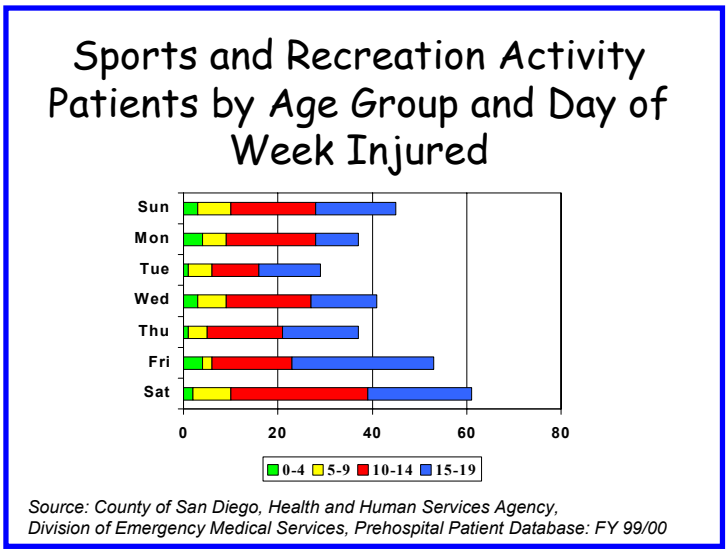
The majority of these occurred in 10-14 year olds (N=127) and in 15-19 year olds (N=121). In comparing rates by different age groups, the highest rate of injury per 100,000 population was also found in the 15-19 year old age group (63/100,000), followed by the 10-14 year old age group (62/100,000). Rates in these age groups were almost four times greater than in 5-9 year olds (17/100,000). This is because older children are more likely to play in structured, competitive team sports such as high school football where the risk of serious injury is greater than in team sports played in the early years of elementary school.

Rate of Sports and Recreation Activity Patients Under the Age of 20 by Age Group

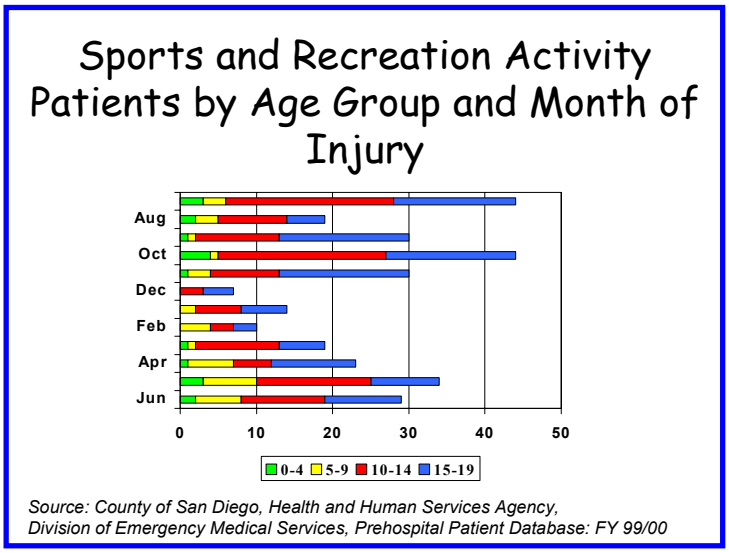


**Rates not calculated on less than five incidents.*
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehospital Patient Database: FY 99/00

Most injuries that occurred in the 15-19 year old patients occurred on Friday or Saturday. Among the 5-9 and 10-14 year old patients, Saturday saw the greatest number of injuries.



Not surprisingly, these injuries were concentrated in the Fall and early Winter months. July and October saw the largest number of injuries to 10-14 year olds (22 each) while September, October, and November had the largest number of injuries to 15-19 year olds (17 each). There were too few injuries to the younger children to discern a clear seasonal pattern.



The majority of these injuries occurred at a public building, school, or recreational/public area. Patients in all age groups were more likely to be injured at a recreational/public area or in a public building.

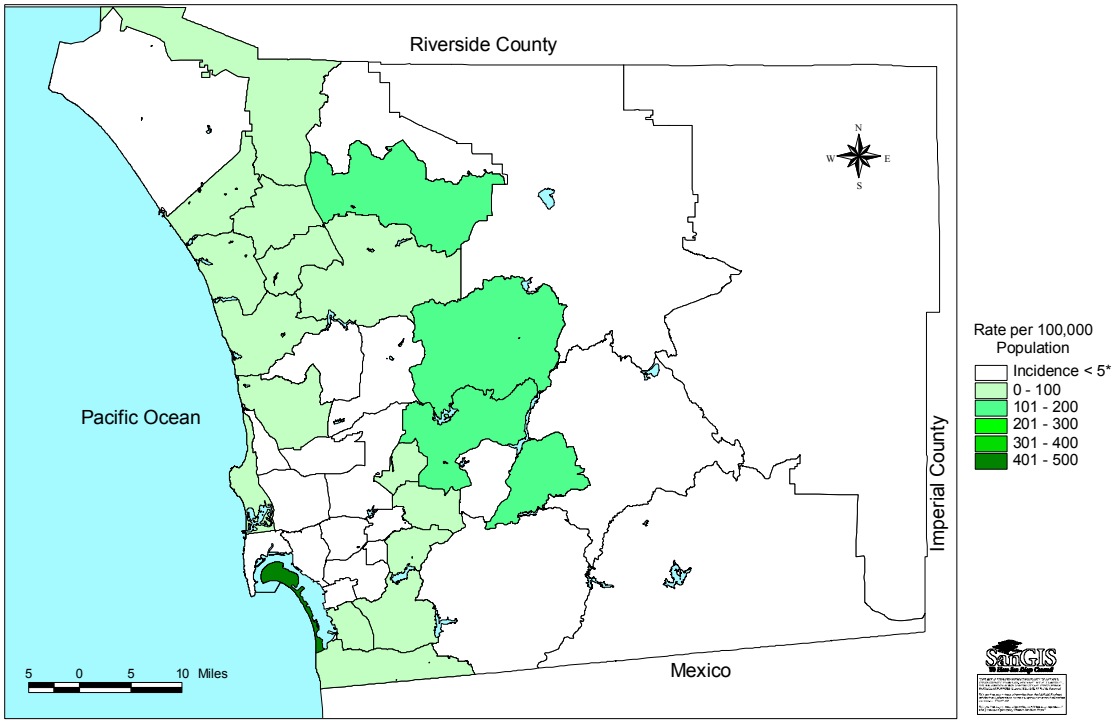
Paramedic/EMT Sports and Recreation Activity Patients
Under the Age of 20

	0-4	**5-9**	**10-14**	**15-19**	**Total**
Home	11	10	16	6	43
Street Highway	1	3	12	8	24
Public Building	3	4	16	7	30
Industry	0	0	0	2	2
School	0	2	13	14	29
Rec Public Area	2	8	47	54	111
Medical Facility	0	0	2	4	6
Other	1	8	20	22	51
Missing	0	2	1	4	7
Total	**18**	**37**	**127**	**121**	**303**

Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, Prehosptial Patient Data, Fiscal Year 99/00.

The Coronado SRA had the highest rate of sports related injury at 492/100,000, over two times that of the next highest rate. There were only ten injuries throughout the far east county SRAs and rates could not be calculated for those areas.

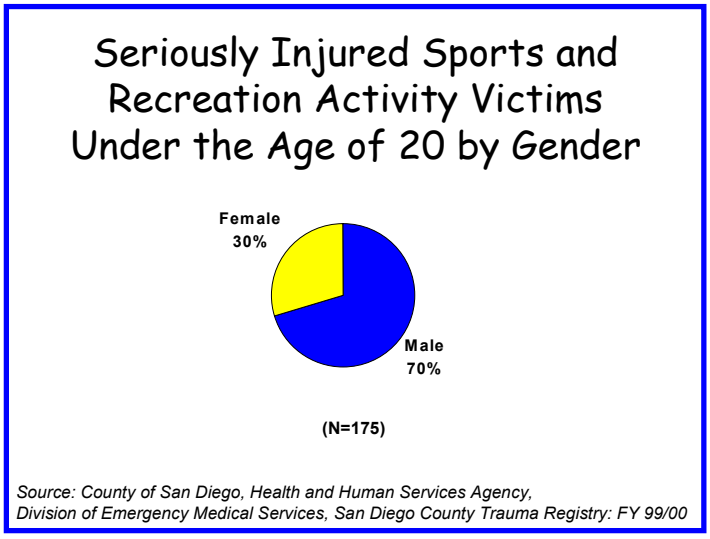
Paramedic/EMT Patients Hit-Kicked During Sports
Under the Age of 20 by Subregional Area



Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Prehospital Database, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.
*Rates not calculated on incidents less than 5.
Note: there were 21 cases with an unspecified SRA.

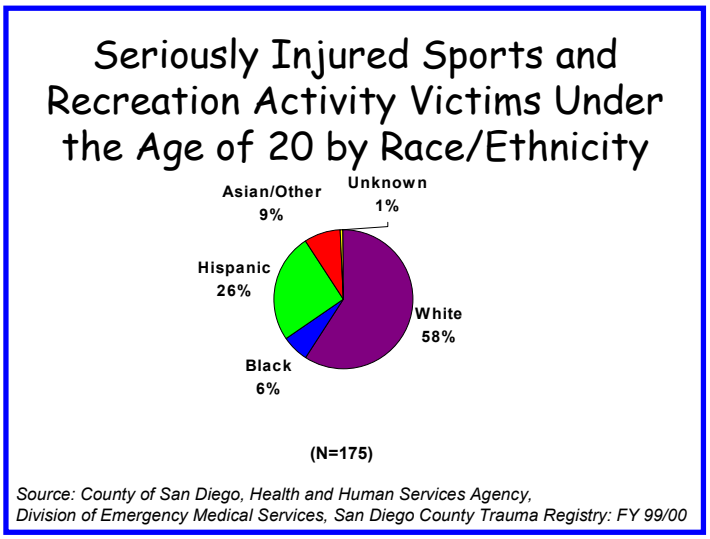
Trauma Registry Patients

Seriously injured patients were those who met the criteria for inclusion in the San Diego County Trauma Registry and survived their injuries. Due to additional information collected by the Trauma Registry, it was possible to expand the definition of sports and recreational injuries to include not only those patients who were struck, hit or kicked during sports, ATV injuries, water transportation (such as jet skis), and animal being ridden (such as a horse), but also those who fell from trees or playground equipment, were injured while swimming (excluding drowning) or were injured while riding skates/scooters (non-traffic related).

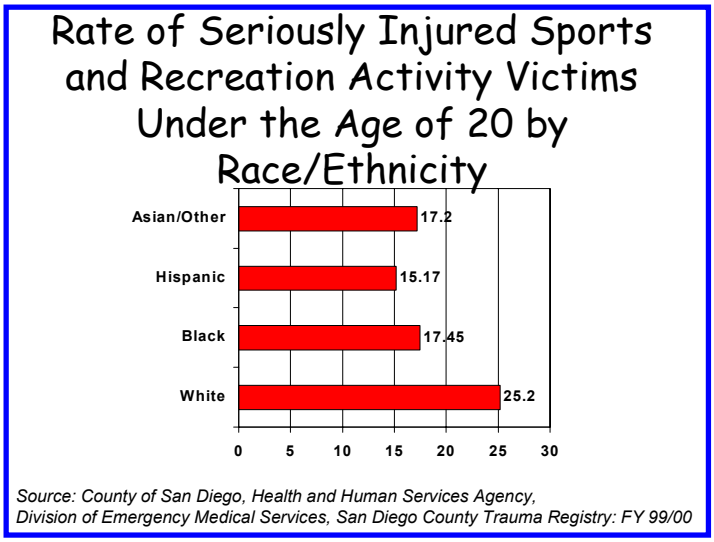


There were a total of 175 children injured in those sports and recreational activities who met the criteria for inclusion in the Trauma Registry. Seventy percent of these patients were male compared to 67% seen by paramedics/EMT-1.

A significantly higher percentage of these patients were White (58%) while the distribution of all other racial and ethnic groups remained basically the same: Hispanics (26%), Blacks (6%), and Asian/Others (9%).

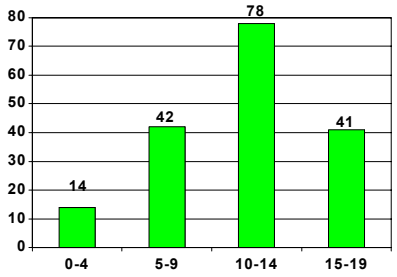


Whites had the highest rate (25/100,000), followed by Blacks (17.5/100,000), Asian/Others (17/100,000), and Hispanics (15/100,000).



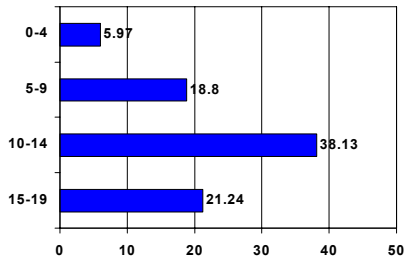
By age group, the number of seriously injured 10-14 year olds (N=78) surpassed the 5-9 year olds (N=42), and also had the highest rate or risk of serious injury at 38/100,000. The 15-19 year olds had a risk of severe injury of 21/100,000. In the youngest age groups both the number and the rate of severe injuries were significantly lower. There were 14 serious injuries among the 0-4 year olds for a rate of 6/100,000.

Seriously Injured Sports and Recreation Activity Victims Under the Age of 20 by Age Group



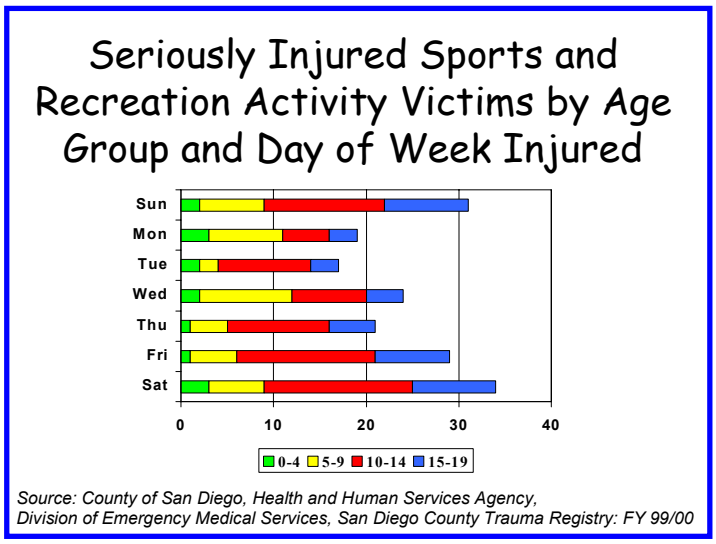
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

Rate of Seriously Injured Sports and Recreation Activity Victims Under the Age of 20 by Age Group

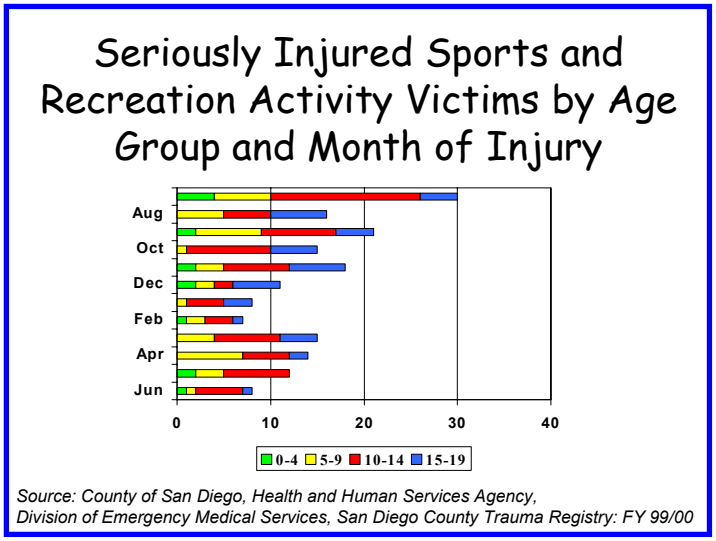


Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

Among the 5-9 year olds, more serious injuries occurred on Wednesday than any other day (10). Saturday saw the greatest number of serious injuries to 10-14 year olds (16) and Saturday and Sunday saw the highest number of serious injuries to 15-19 year olds (9 each).

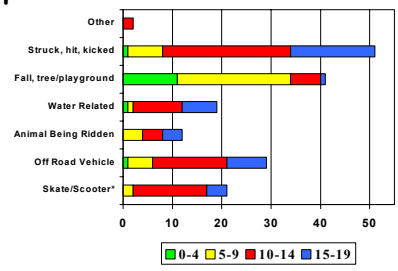


July had substantially more serious injuries to children under twenty than any other month (30). The Fall and early Winter months continued to have a higher proportion of serious injuries to 15-19 year olds.



Most 15-19 year olds sustained their serious injuries by being struck, hit or kicked during sports. A few also sustained serious injuries riding off road vehicles and skate/scooter which includes rollerblading and skateboarding. Not surprisingly, the most common mechanism of serious injury for 10-14 year olds was also struck/hit/kick during sports and skate/scooter. Most of the children under 10 years of age fell from trees or playground equipment with a few injured while participating in various other activities.

Seriously Injured Sports and Recreation Activity Victims by Age Group and Mechanism of Injury



Non Traffic
Source: County of San Diego, Health and Human Services Agency, Division of Emergency Medical Services, San Diego County Trauma Registry: FY 99/00

San Diego Safe Kids Coalition Prevention Activities

Page 5-13 Delete all text under Prevention Activities and insert the following…. In 2000, the Safe Kids Coalition identified the need for a mandatory helmet requirement for children and adolescents under 18 years of age who rode skateboards, scooters and in-line skates. This year Senator Jack O'Connell introduced SB 1924 adding these provisions to the existing bicycle helmet law. The bill appears to have strong support and hopefully will pass and be signed by Governor Davis.

Another focus area for the Safe Kids Coalition has been preventing playground injuries. With the help of certified Playground inspector Dennis Sulzer and Jane Young, students studying injury prevention at San Diego State University participated in a playground safety surveillance survey throughout the County of San Diego. The students were trained on how to conduct an assessment of the playground based on guidelines developed by the California Department of Health Services. In addition to the written assessment, photographs were taken to document their findings. Currently the data collected is being analyzed and an evaluation conducted by a outside agency is being requested. Pending the evaluation, the data may be used to develop advocacy programs concerning playground safety within San Diego County.

Recently physicians have been expressing concern over the high numbers of young children who are being injured as the result of operating or riding on All Terrain Vehicles or ATV's. Further research into this area is needed before action on this topic can be taken.

Prevention Activities You Can Do

- ♥ Make sure your child always wears appropriate protective gear and clothing, whether they are competing or not.
- ♥ Talk with your child's coach to make sure that the activities are developmentally appropriate and injury prevention strategies are incorporated into all activities.
- ♥ Helmets, elbow pads and kneepads should be worn at all times when in-line skating, roller skating and skateboarding.

- ♥ Encourage skateboarding in controlled skateboard parks. City streets and sidewalks increase the likelihood of injuries due to irregular surfaces and other uncontrolled conditions.
- ♥ Inspect the playgrounds in your neighborhood for worn or old equipment, chipped paint and unsafe surfaces. There should be at least 12 inches of impact absorbent ground cover such as wood chips or sand OR a rubberized playground mat surface. For additional information concerning playground safety, contact the Safe Kids Coalition.
- ♥ Be sure that warm-up and stretching exercises are included in the pre-game activities.
- ♥ Wear helmets when skiing or snowboarding.
- ♥ Always wear a helmet when riding a horse or other animal.
- ♥ All passengers on watercraft should wear Coast Guard approved personal floatation devises at all times. Floaties, water wings or other inflatable toys cannot provide the same level of protection as lifejackets.
- ♥ Use protective gear when riding all terrain vehicles (ATVs). ATVs require the same level of physical protection as motorcycles.
- ♥ Extend the "Don't Drink and Drive" message to ATV's and watercraft.

Local EMS Research

Scooters, Skateboards, Rollerblades, and Head Injury

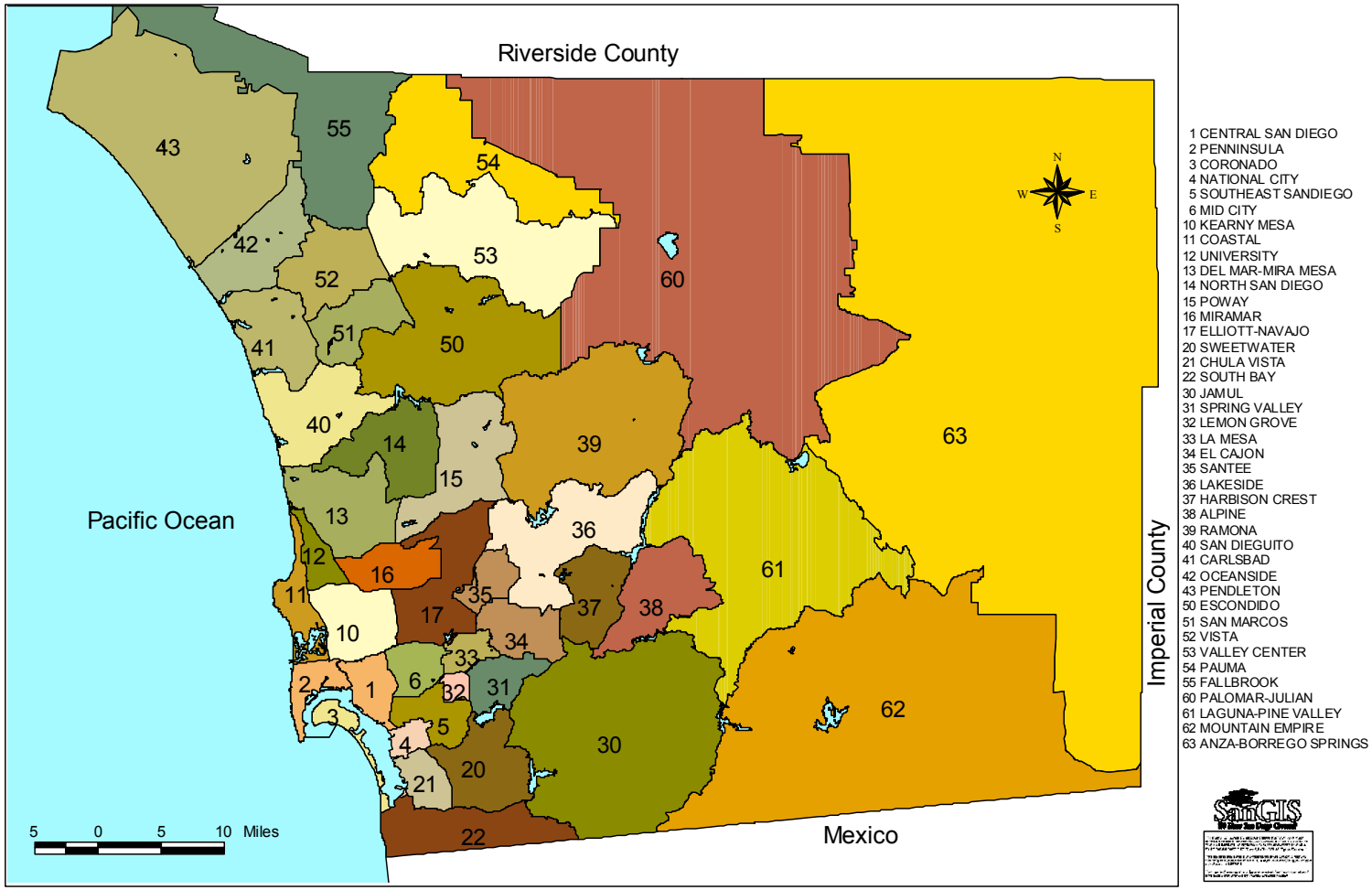
Background: There is currently no California law requiring helmet use with skateboards, scooters or rollerblades. Touted as "the toy" for the Christmas 2000 season with national sales of over 5 million, the injury potential of scooters led to press conferences to warn parents of the potential dangers of scooters.

Methods: This study examined contributing factors of non-motorized, recreational vehicle injuries in San Diego County as well as the risk of related injuries to children and adults using prehospital, trauma and medical examiner's data.

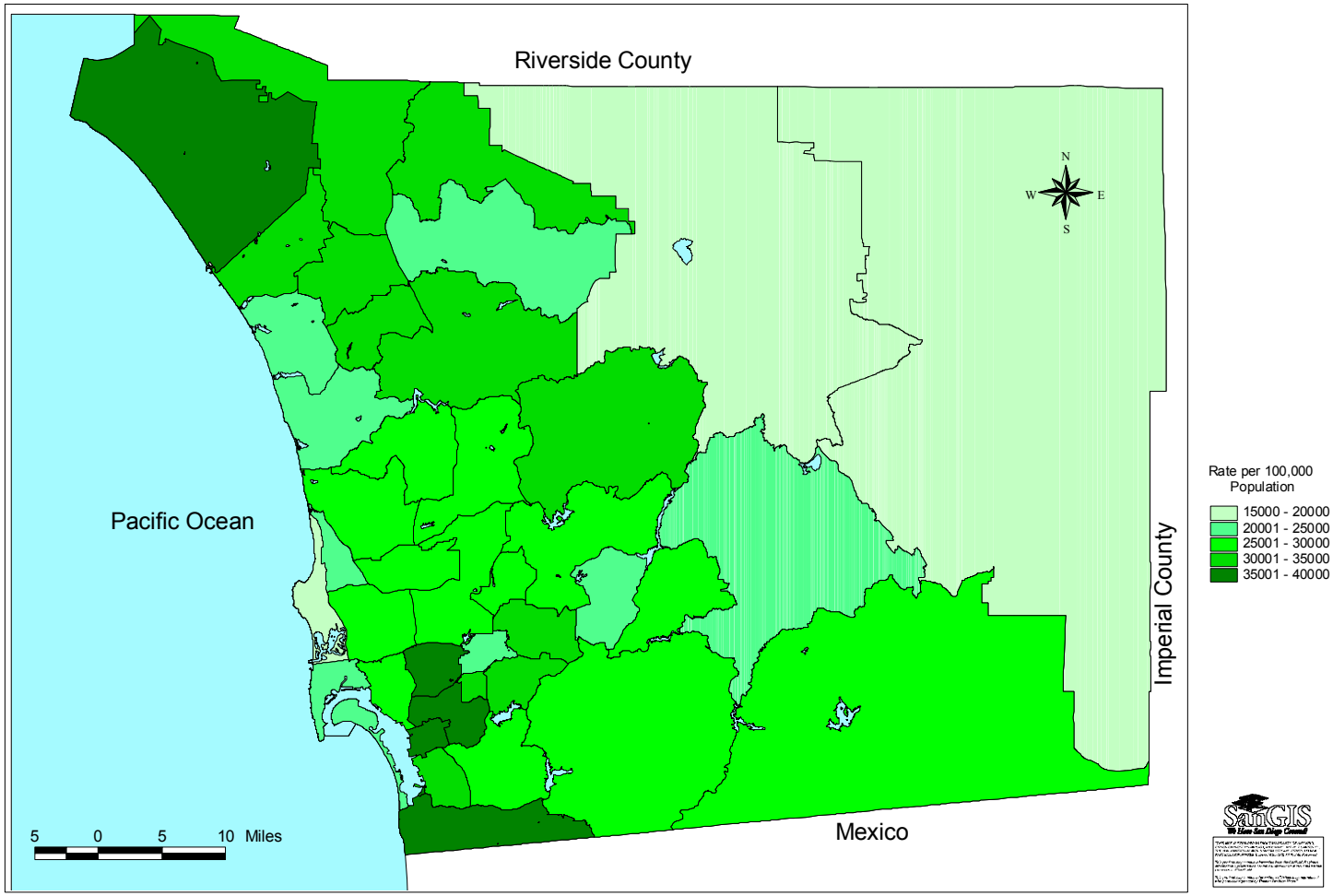
Results: The rate of severe injuries from skateboards and rollerblades/skates increased dramatically between FY96/97 and FY97/98 from 1.91/100,000 to 5.30/100,000. Between FY98/99 and CY2000, the rate of injuries due to rollerblades began to decrease while scooter and skateboard injury rates increased. Among adults wearing helmets there were no acute status injuries, without helmets between 5% and 20% of injuries were acute. There were similar results among children. Two adult deaths were reported due to scooter related head injuries.

Conclusions: The risk of non-motorized, recreational vehicle injury applies to adults as well as to children. Helmet use is protective against head injury. There is increased risk of abdominal injury with scooters due to handlebars.

San Diego County
Subregional Areas



Population Rate
Under the Age of 20 by Subregional Area



Note: This map illustrates the number of children less than 20 years of age per 100,000 total population for each SRA.
Source: Division of Emergency Medical Services, Health and Human Services Agency, County of San Diego, June 2002.
Prehospital Database, FY 99/00, Demographic Characteristics Estimates: San Diego Association of Governments (SANDAG), 2000.

San Diego Safe Kids Coalition Members

American Academy of Pediatrics
American Red Cross
American Red Cross/WIC
Automobile Club of So. California
Babies R Us
Bancroft Elementary School
Bonita Fire Department
Boy Scouts of American
Buckle Up San Diego
Burn Institute
California Center for
Childhood Injury Prevention
California Highway Patrol
Catalyst
Chesterton Elementary School
Children's Hospital & Health Center
Children's Hospital Auxiliary
Chula Vista Police Department
City of San Diego Lifeguards
Cox Communications
Community Care Licensing
El Cajon Fire Department
El Cajon Police Department
ENA
EPICMEDics
Encinitas Fire Department
Encinitas Sheriff
Escondido Fire Department
Escondido Police Department
Evan's Tire
Harloff BMW
Highlands Elementary School
Indian Health Center
La Jolla Golden Triangle Rotary
La Mesa Police Department
Lemon Grove Sheriff Department
Navy Medical Center
Navy Occupational Health
North County Collaborative
Ninth District PTA
Oceanside Fire Department
Office of the Medical Examiner
Pacific Safety Council
Palomar-Pomerado Health Center
Pool Safe Cover Systems
Qualcomm, Inc
Regional Poison Control Network
San Diego County Department of
Environmental Health
San Diego County Health & Human
Services Agency
- Child Health & Disability
- Childhood Lead Poisoning
- Division of Chronic Disease and Injury Prevention
- Division of Emergency Medical Services
- Household Hazardous Materials

San Diego County School Boards Association
San Diego County Sheriff's Association
San Diego County Office of Education
- Risk Management

San Diego Fire & Life Safety Services
San Diego Parks & Recreation Department
San Diego Police Department –Traffic
- Division

San Diego Safe Communities 2000
San Diego Safe Communities
San Miguel Consolidated Fire District
Scripps Encinitas Hospital
Scripps Mercy Hospital
Scripps Las Madres
Sharp Healthcare- Think First
TOYS R US
Trauma Research & Education Foundation
U.C.S.D. Burn Center
U.S. Consumer Product Safety Commission
Vista Community Clinic

We would like to thank all the San Diego County Paramedics/EMT-1's, Prehospital Agencies, Hospitals, Trauma Centers and Medical Examiner's Office for their data collection efforts and contribution to this research.

The San Diego County Trauma Centers are:

- Palomar Medical Center
- Scripps Mercy Hospital and Medical Center
- Scripps Memorial Hospital
- Sharp Memorial Hospital
- University of California, San Diego Medical Center
- Children's Hospital and Health Center